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Situation and
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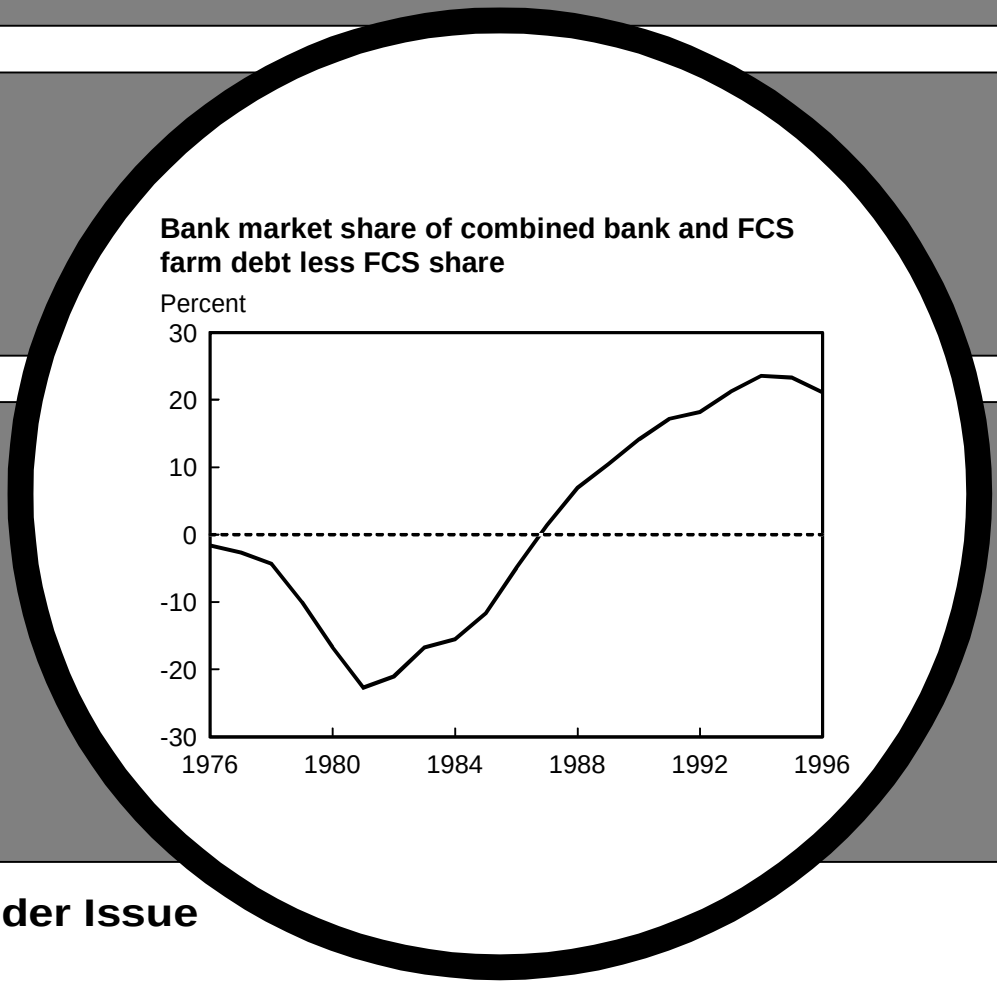

Annual Lender Issue

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Summary

Financial institutions serving agriculture continued to experience improved conditions in 1996, and further gains are expected in 1997. Total farm business debt at yearend 1996 is estimated at $155.5 billion, up 3.1 percent from a year earlier. The Farm Credit System (FCS) accounted for about 54 percent of the estimated $4.7-billion increase in farm lending in 1996, compared with 39 percent in 1995. Farm business debt is expected to grow about 3 percent again in 1997. Commercial bank loans are projected to increase less than 2 percent, compared with an anticipated 5-percent rise in FCS debt. Creditworthy farmers should have adequate access to loans, mostly from commercial banks and the FCS, the largest suppliers.

Agricultural lenders reported generally expanding demand for farm credit in 1996. Both the short- to intermediate-term loans (nonreal estate credit) and real estate debt components increased just over 3 percent. In recent years farm real estate lending had lagged behind. Despite a 2-percent increase in bank loans in 1996, banks' share of the farm debt market declined for the first time in 15 years. Contributing to this decline were a 6.8-percent rise in debt held by the FCS and bank customers' use of favorable incomes to reduce loan balances.

Additional debt is not expected to unduly burden farm operators in 1997. Reduced income levels and higher farm business indebtedness suggest that farm operators will have less income available to meet higher principal and interest payments on their loans. But the outcomes will vary considerably by region and commodity. Weather-related problems will affect operators and lenders in some regions. Net cash income in 1997 will decline on most types of commercial farms specializing in crops and increase on those specializing in livestock.

Interest rates on new loans to farmers declined from 1995 to 1996. Annual interest rates on new nonreal estate farm loans declined about 100 basis points, while rates on real estate farm loans declined about 50 basis points for bank and FCS lenders. Interest rates on new farm loans in 1997 are expected to remain relatively stable.

While their performance indicators were a bit mixed, agricultural banks had another solid year in 1996. Their annualized mid-1996 rate of return on assets (ROA) grew to 1.3 percent, exceeding the strong performance of recent years. Though return on equity (ROE) also increased, at 12.3 percent it remained below the average ROE of nonagricultural small banks. However, this is not a concern because it reflects high capital levels for agricultural banks. Nonperforming loans and loan loss provisions increased a little to 1.3 percent and 0.3 percent of total loans, respectively, perhaps reflecting problems in the livestock industry. But loan loss provisions were only 0.3 percent of total loans, and agricultural banks showed no general signs of current or future problems. Their strong capital positions provide a cushion against unexpected problems. Only two agricultural banks failed in 1996 and only five failed during 1993-96.

The FCS entered 1997 in strong financial condition. Loan quality continues to improve, and loan volume grew faster than inflation for the second consecutive year. Earnings remain strong as net interest income and operating efficiency improve. Net income before extraordinary items increased for the first 9 months of 1996 despite a $61-million increase in provisions for loan losses. The increased reserves reflect additional risks of loans to: cooperatives because of potential losses associated with certain hedging contracts; livestock producers confronting higher feed costs and lower livestock prices; food processing cooperatives affected by higher grain costs; and borrowers who experienced drought or other adverse weather conditions in 1996.

Funding for Farm Service Agency (FSA) credit programs in fiscal 1997 is similar to last year. The exception is the direct farm ownership program, which saw its funding cut to less than half the 1996 level. FSA continues to pare down its backlog of delinquent loans in direct lending, with outstanding delinquent volume at the end of fiscal 1996 dropping 24 percent from a year earlier. Losses on direct loans remained above $1 billion, while losses on guaranteed loans remained low. The overall quality of the $6.4-billion guaranteed loan portfolio remains good.

Extensive changes to FSA's credit programs were made in the 1996 farm legislation. To encourage graduation from FSA's credit programs, stricter time limits were imposed on farmers' eligibility to borrow through the programs and a 95-percent loan guarantee was made available to help direct loan borrowers move to commercial credit sources. Beginning farmers were aided by a 95-percent guarantee on certain loans, targeting of annual loan funds to these applicants, and a new farmland purchase program offering rates at 4 percent. Debt restructuring and loan servicing eligibility were tightened to increase the likelihood that such actions will help farmers stay in business and reduce the government's costs. Rules governing the sale and management of real inventory property were streamlined to expedite disposal and reduce program costs.

Farmer Mac sold stock in 1996 to recapitalize after many years of sustained losses had depleted its capital. Two stock issues during the year netted $37 million in fresh capital to the government-sponsored enterprise. During the year, the Western Farm Credit Bank terminated its loan pooling operation and Farmer Mac began directly purchasing loans from lenders under authority granted by the FCS Reform Act of 1996. In the first 6 months of operation, Farmer Mac issued just $46 million in mortgage backed securities (MBS) from loans purchased from lenders. Loan volume in the MBS pools was concentrated in the Western States.

Lenders Benefit from Farm Sector Economic Performance

Record farm income is forecast for 1996. But the farm income forecast for 1997 is down from 1996 and slightly under the 1990s' average.

The financial condition of agricultural lenders was stable to improved in 1996, and some additional gains are expected in 1997. But each of the four major institutional farm lender categories--commercial banks, the Farm Credit System (FCS), the Farm Service Agency (FSA), and life insurance companies--faces some unique challenges.

The distribution of the farm sector's estimated $155.5 billion farm business debt among lenders on December 31, 1996, is summarized in table 1. Commercial banks account for 39.4 percent of all farm loans, making them the leading agricultural lender, followed by the FCS with 25.6 percent. Individuals and others hold an estimated 23.1 percent.

Lenders Interface with a Generally Profitable Farm Sector

Generally favorable conditions experienced by the farm economy over the past several years have contributed to the strengthening financial condition of farm lenders. Nevertheless, in 1996, some lenders were affected by adverse economic and weather-related factors affecting portions of the farm sector--particularly in livestock production and in the Southern Plains.

In 1997, farm lenders will be dealing with a farm sector whose economic performance is forecast to be slightly under the 1990s' average and whose income is expected to decline from the record 1996 forecast. Net cash farm income, which measures sales during the year, is forecast to increase from $48.8 billion in 1995 to $57.4 billion in 1996, before declining to $50.8 billion in 1997. Net farm income, which assesses the net value of calendar-year production, including the portion placed in storage, is forecast to jump from $34.8 billion in 1995 to $51.7 billion in 1996. But net farm income is forecast to decrease to $40.4 billion in 1997.

Cash receipts from both crop and livestock enterprises averaged $88 billion, respectively, during 1990-95. Crop receipts are forecast to be $108.3 billion for 1996 and $101.5 billion for 1997. Lower grain prices resulting from expanding world grain supplies explain most of the projected 1997 decline. Livestock receipts are forecast at $92 billion for both 1996 and 1997. An increase in forecast 1997 beef cattle receipts is mostly balanced by a forecast decrease in dairy receipts.

Farm sector assets grew at an annual average rate of nearly 4 percent during the 1990s and are forecast to top $1 trillion in 1996 and 1997. Farm sector equity grew 25.3 percent between 1990 and 1996, to $879.7 billion, and is forecast to increase another 6.5 percent in 1997 to $937 billion. Much of this increase can be attributed to farmland value increases.

This year is the second in which the 1996 farm legislation (Federal Agriculture Improvement and Reform Act) will determine the amount of direct government payments farmers receive. The new law specifies the amount of crop payments that participating farmers will receive in each of the 7 fiscal years of its life. Farmers received about $9 billion per year (5 percent of their annual cash income) from direct government payments during 1990-95. Payments are forecast at $7.8 billion in 1996 and $7.6 billion in 1997. The timing of the payments is a major uncertainty for calendar 1997. But the farm act's impact on farm lenders is not expected to be significant in the short run and the longer term impact is difficult to predict.

Although farm sector economic performance has been strong, 1997 performance will vary considerably by region, commodity, and farm size. Declining grain receipts, improving cattle receipts, and lower feed expenses will affect farm income in some parts of the Nation more than others. Net cash income is forecast to decrease in 1997 for most farms that specialize in crops, decline in most regions after increasing in 1996, and decline less on the largest farms.

While farm lenders are dealing with a farm sector whose overall financial health remains strong in 1997, potential sector volatility in the future will require close attention. Smaller carryovers, lack of government-carried stocks, and year-to-year swings in grain production could contribute to wider price and revenue swings under the provisions of the 1996 farm legislation. Livestock producers will have to replace buying feed supplies just in time with a management strategy that assumes risk of future shortage. Grain producers will have to increase the use of futures, hedging, and other risk management techniques.

Total Farm Debt Continues To Increase

The expected 2- to 3-percent rise in farm business debt in 1997 will be the seventh annual increase in the last 8 years after 5 successive years of net debt retirement. Total farm business debt is anticipated to rise to about $160 billion by the end of 1997, the highest since 1985. The expected increase of $4-5 billion during 1997 will mark the fifth straight year of rising debt and follows an increase of $4.7 billion in 1996.

The 3.1-percent increase in 1996 was the second largest annual percentage gain in outstanding loans since 1982. During 1989-96 total farm debt grew 12.8 percent while the GDP deflator increased 22.5 percent. But for yearend 1993 to the end of 1996, total farm debt grew 9.5 percent while the GDP deflator increased 7.1 percent. The recent increase in farm debt is important to watch, but not necessarily a cause for concern.

The farm sector's financial indicators continue to show the strength that has characterized recent years. Total farm business debt increased $16.4 billion or 11.8 percent during 1992-96, but this is only slightly above the inflation rate. Total farm assets exceeded $1 trillion for the first time as farm equity increased for the tenth straight year. The sector debt load relative to income and the debt-to-asset ratio are steady to down. The total rate of return has increased the last 2 years and is at a normal level.

Figure 1

Total farm business debt increasing

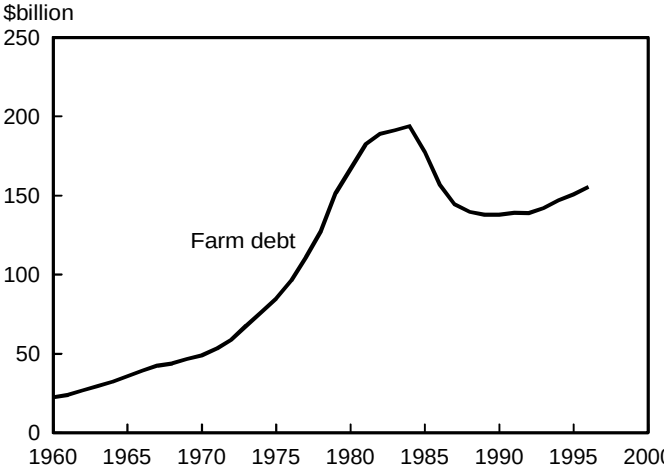


Figure 2

Annual change in farm debt positive since 1993

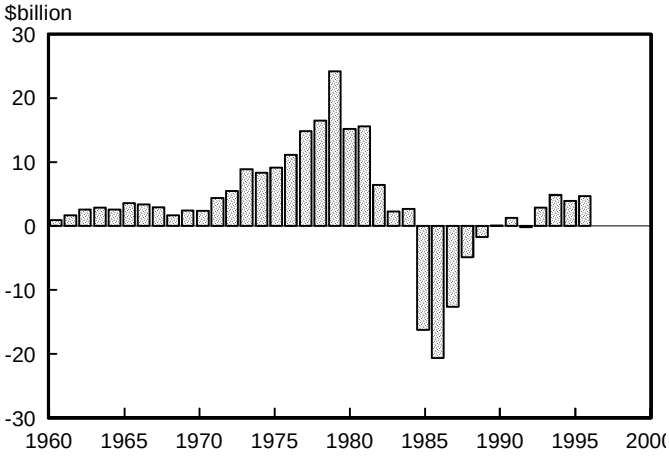


Figure 3

Farm sector balance sheet shows equity growth

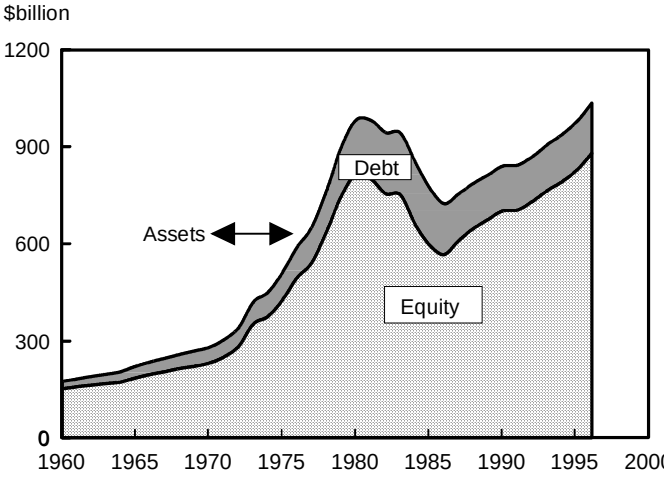


Figure 4

Farmers' debt load continues at lower levels

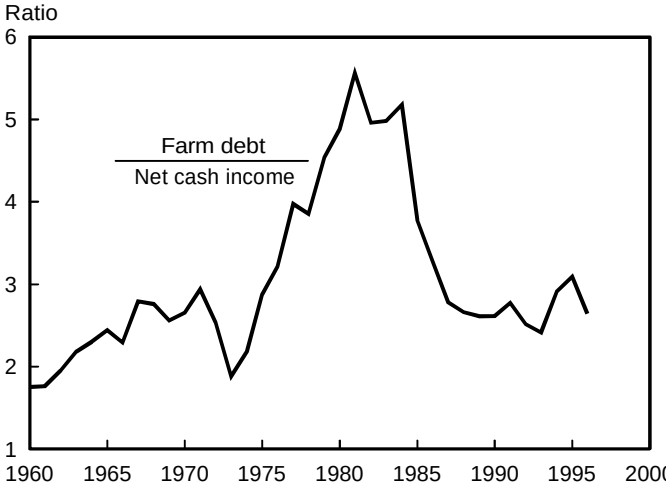


Figure 5

Real net farm and real net cash incomes increase in 1996

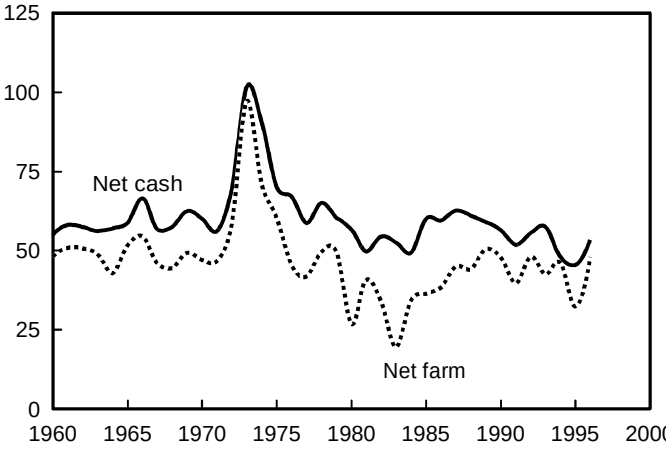
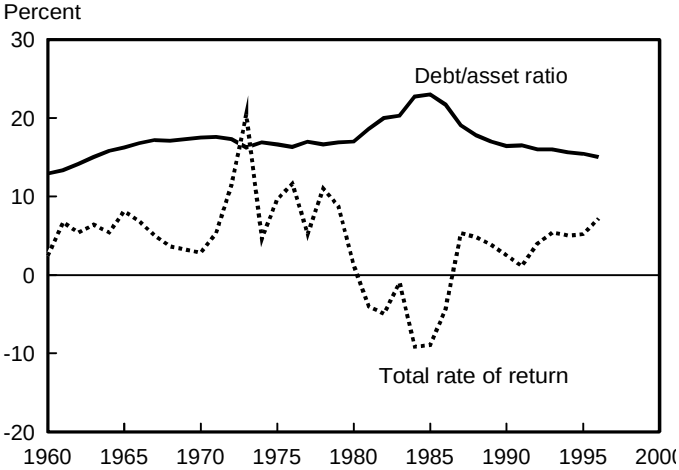


Figure 6

Farm sector debt to assets and total rate of return ratios return to more normal levels



Lenders' Financial Performance Strong

Farm lenders experienced another profitable year and entered 1997 in financially sound condition. FCS is gaining market share.

Lenders' Financial Position Continues Strong

The position of agricultural lenders in 1996 reflected the generally healthy state of farmers' finances in recent years. All major institutional lender groups except FSA continue to experience low levels of delinquencies, foreclosures, net loan chargeoffs, and loan restructuring (tables 2 and 3).

The financial health of the FCS and commercial banks remains strong. FCS net income through the third quarter of 1996 was $950 million, up from $907 million a year earlier. FCS net interest margin for the first 9 months of 1996 was 3.02 percent. The spread has remained at levels--generally above 3 percent--since the first quarter of 1993 that help maintain profits. Net interest income was $1.627 billion for the 9 months ending September 30, 1996, compared with $1.495 billion a year earlier.

Agricultural banks reported high average return on equity (ROE) and return on assets (ROA) for the 6 months ending June 30, 1996, and very low rates of net loan chargeoffs. Continued strong performance in ROA indicates excellent loan quality in farm bank loan portfolios. In terms of loan quality, farm banks continue to outperform small nonagricultural banks. ROE is higher for small nonagricultural banks, but this partly reflects higher equity at agricultural banks. Agricultural bank loan loss provisions grew a bit to 0.3 percent in the first half of 1996, but still reflect an optimistic outlook regarding future loss rates. Only two agricultural banks failed in 1996 and only five failed during 1993-96.

USDA's FSA, the government farm "lender of last resort," continues to work through a backlog of delinquencies in its direct loan programs. Delinquent direct loans at the end of fiscal 1996 were $3.5 billion. Loan restructuring continues. FSA loan restructured writedowns, recovery writeoffs, and debt settlements of $1.1 billion were approved through September 1996, up 18.9 percent from the dollar level approved during the previous fiscal year. During the 5 fiscal years 1987-91, net chargeoffs of $12.1 billion resulted from the FSA loan writedowns, writeoffs, and debt settlements that were approved; the net chargeoffs declined to $7.4 billion during the 5 fiscal years 1992-96 (table 3).

Lenders will be dealing with more variation in farm sector economic performance. In 1997, lower cash income levels and larger indebtedness despite favorable interest rates suggest that an increased number of operators will have less monetary resources available. Those affected farmers may have difficulty meeting their debt service obligations. There will be important differences by region, commodity, and farm size.

Weather-related problems will affect operators and lenders in some regions. Examples include the aftermath of the 1995-96 drought in the Southern Plains, the severe 1996-97 winter in parts of the Northern Plains and Lake States, and the 1996-97 flooding in the Pacific Coast States. Surveys of commercial bank officers by the Dallas and Kansas City Federal Reserve Banks indicate that some problems may be arising. In these Federal Reserve Districts, bankers report lower repayment rates and a higher number of renewals and extensions.

Net cash income in 1997 will decline on most types of commercial farms specializing in crops and increase on those specializing in livestock. Lenders operating in some areas express concerns about current prospects for cow-calf, fed cattle, wheat, corn, and some hog operations. In 1997, farms of all sizes are forecast to have some decrease in their 1997 net cash income with the largest percentage declines forecast for those farms with under $250,000 in annual sales.

FCS Gaining Market Share

While farm credit use has been on the rise during most of the 1990s, substantial changes have occurred in the market shares of farm business debt among the four classes of traditional farm lenders as well as with the composition of loans made by each class. It is important to note the interplay between two important lender classes, commercial banks and the FCS, who held 65 percent of farm debt at yearend 1996. Since 1981, when their market share was 21.3 percent, commercial banks have increased their share of total farm loans for 14 straight years, climbing to 39.8 percent by 1995. Much of this shift occurred at the expense of the FCS, whose market share dropped from a high of 34 percent in 1982 to 24.4 percent in 1994, before an increase occurred in 1995-96.

Commercial banks' total farm loan portfolio grew 48.8 percent during 1987-96, while the FCS portfolio dropped 44.8 percent from a 1982 high to a 1993 low. The farm financial crisis of the early 1980s adversely affected the FCS, causing many farmer borrowers to leave because of the financial turmoil and the fear that they could lose their stock in failed FCS units. Commercial banks also experienced financial stress but were able to compete effectively in the crisis' aftermath to build market share. But FCS market share increased in both 1995 and 1996 after trending downward since 1982, and commercial bank share declined in 1996 following the 14-year increase. During 1995-96, FCS farm lending grew 11.4 percent ($4.1 billion) while commercial bank farm loans increased only 5.9 percent ($3.4 billion). FCS accounted for about 54 percent of the estimated $4.7-billion increase in farm lending in 1996.

Table 1—Distribution of farm business debt, by lender, December 31, 1996 1/

Lender	Type of debt		
	Real estate	Nonreal estate	Total
	Percent of total		
Commercial banks	15.0	24.4	39.4
Farm Credit System	16.8	8.8	25.6
Farm Service Agency	3.0	3.0	6.0
Life insurance companies	5.9	---	5.9
Individuals and others	11.9	11.2	23.1
Commodity Credit Corporation	0	---	2/
Total	52.6	47.4	100.0

1/ Preliminary. Due to rounding some subcategories may not add to totals. 2/ This excludes CCC crop loans which are estimated at $2 billion at the end of calendar 1996.

Table 2—Delinquent farm loan volume, by lender, 1987-96

Lender	Yearend 1/									Mid-year
	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996 2/
	Billion dollars									
Commercial banks 3/ 4/	1.4	1.0	0.7	0.6	0.7	0.6	0.5	0.4	0.4	0.7
Farm Credit System 5/	5.2	3.3	2.5	2.5	2.2	1.9	1.5	1.1	0.8	0.7
Life insurance companies 6/	1.3	0.8	0.4	0.4	0.4	0.3	0.2	0.2	0.2	0.3
Farm Service Agency 7/	11.8	12.5	11.1	8.1	7.3	6.6	5.8	4.4	4.5	3.5
	Percentage of outstanding loans									
Commercial banks 3/ 4/	4.8	3.3	2.3	1.9	1.9	1.8	1.4	1.1	1.1	1.6
Farm Credit System 5/	11.8	8.0	6.1	6.1	5.4	4.6	3.6	2.7	1.8	1.6
Life insurance companies 6/	14.3	8.9	4.7	4.2	3.8	3.3	2.2	2.6	2.7	3.0
Farm Service Agency 7/	45.8	49.8	47.8	41.3	41.7	42.5	41.0	34.8	39.0	32.6

1/ End of fiscal year (Sept. 30) for the Farm Service Agency (FSA) and end of the calendar year (Dec. 31) for the other lenders. 2/ June 30 except for FSA. 3/ Delinquencies were reported by institutions holding most of the farm loans in this lender group. Data shown are obtained by assuming that the remaining institutions in the group experienced the same delinquency rate. 4/ Farm nonreal estate loans past due 90 days or more or in nonaccrual status, from the Reports of Condition submitted by insured commercial banks. 5/ Data shown are nonaccrual loans include accrued interest receivable and exclude loans of the Banks for Cooperatives, Ag Credit Banks, and affiliated associations. 6/ Loans with interest in arrears more than 90 days. 7/ Prior to 1988 a loan was delinquent when a payment was more than $10 and 15 days past due. Beginning in 1988, a loan is delinquent if a payment is more than 30 days past due. Data shown are for September 30; thus, they avoid the yearend seasonal peak in very short-term delinquencies and so are more comparable with those shown for other lenders. The FSA data reflect the total outstanding amount of the loans that are delinquent (as do the data shown for other lenders), rather than the smaller amount of delinquent payments that is often reported as FSA "delinquencies."

Table 3—Farm loan losses (net chargeoffs), by lender, 1985-96

Year	Commercial banks 1/		Farm Credit System 2/		Farm Service Agency 3/		Exhibit: Life insurance company foreclosures 4/	
	Million dollars (Percent of loans outstanding at end of period) 5/							
1985	1,300	(3.3)	1,105	(1.6)	257	(0.9)	530	(4.8)
1986	1,195	(3.4)	1,321	(2.3)	434	(1.5)	827	(7.9)
1987	503	(1.6)	488	(0.9)	1,199	(4.3)	692	(7.5)
1988	128	(0.5)	413	(0.8)	2,113	(8.4)	364	(4.0)
1989	91	(0.3)	(5)	(0.0) 6/	3,297	(12.4)	204	(2.3)
1990	51	(0.2)	21	(0.0) 6/	3,199	(13.5)	85	(0.9)
1991	105	(0.3)	47	(0.1)	2,289	(10.4)	95	(1.0)
1992	82	(0.2)	19	(0.0) 6/	1,887	(9.1)	148	(1.8)
1993	54	(0.2)	-2	(0.0) 6/	1,768	(9.4)	96	(1.1)
1994	69	(0.2)	-26	(-0.1)	1,353	(7.5)	42	(0.5)
1995	51	(0.1)	-4	(0.0) 6/	1,041	(6.0)	73	(0.8)
1996 7/	43	(0.1)	25	(0.0) 6/	1,344	(7.9)	10	(0.1)

1/ Calendar year data for nonreal estate loans. 2/ Calendar year data. 3/ Fiscal year data beginning October 1. Includes data on the insured (direct) and guaranteed farm loan programs. 4/ Loan chargeoff data are not available for life insurance companies. 5/ Loan loss data rounded to nearest million dollars. 6/ Less than 0.05 percent. 7/ Commercial bank data through June 30, 1996, and Farm Credit System and life insurance company data through September 30, 1996.

Sources: American Council of Life Insurance, Board of Governors of the Federal Reserve System, The Farm Credit Council, and the Farm Service Agency.

Farmers' Use of Repayment Capacity Rises

Farmers are expected to use their credit lines more fully in 1997.

Additional Debt Not Expected To Unduly Burden Farm Operators

Reduced 1997 income levels and higher farm business indebtedness suggest that farm operators will have less income available to meet higher principal and interest payments on their loans. Any potential interest rate decline in 1997 is not expected to be large enough to offset the combined effects of rising debt and lower net cash income. Although some operators may experience difficulty in generating sufficient farm income to meet their debt service requirements, widespread financial stress is unlikely.

While rising land values reflect farmers' longer term expectations of profitability in the sector, farmers are anticipated to use their available credit lines more fully in 1997. Farm debt repayment capacity use (actual debt expressed as a percentage of maximum feasible debt) effectively measures the extent to which farmers are using their available lines of credit. This ratio indicates that, in 1997, farmers are expected to use almost 58 percent of the debt that could be supported by their current incomes. Use of debt repayment capacity rose from 45 percent in 1993 to 58 percent in 1995. Despite the 1996 rise in farm business debt, high net cash income levels and lower interest rates reduced repayment capacity use to 51 percent. In 1997, use of debt repayment capacity is expected to be the highest since 1986.

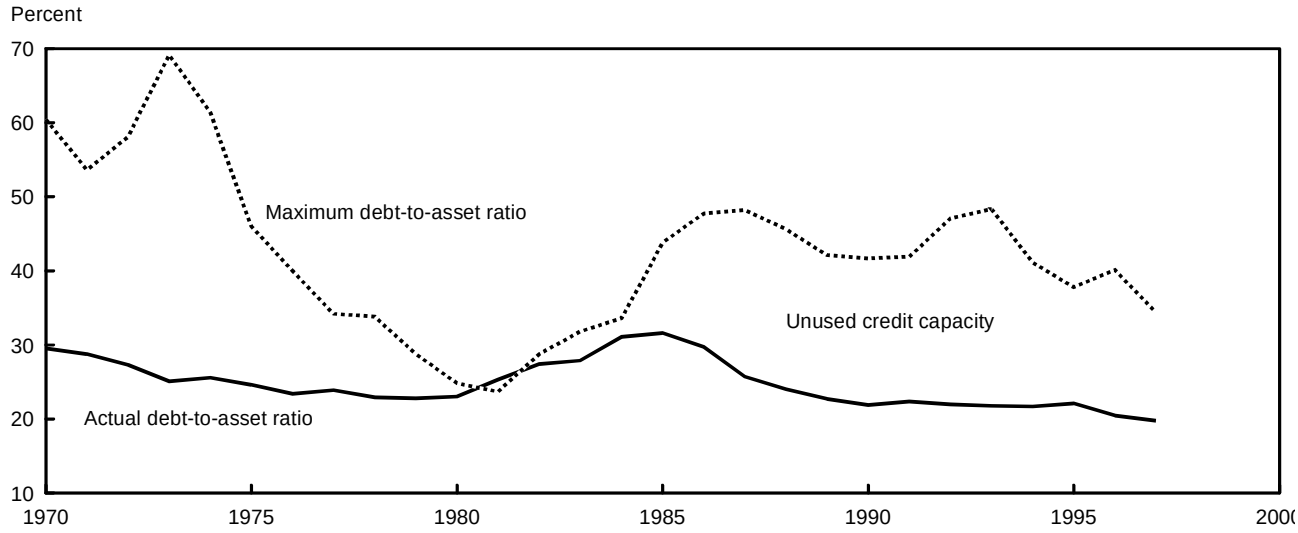
Lenders generally require that no more than 80 percent of a loan applicant's available income be used for repayment of principal and interest on loans. For farm operators, this income available for debt service (measured as net cash income plus interest) determines the maximum loan payment the farmer could make. Given current market interest rates and an established repayment period, the maximum debt that the farmer could carry with this loan payment can be determined. Using current bank interest rates and a 7-year repayment period, maximum feasible debt conceptually measures the line of credit that could be available to farmers. Debt repayment capacity use is a measure of actual debt relative to this theoretical maximum feasible debt.

Despite the rise in use of available credit capacity, the traditional debt-to-asset ratio indicates that farmers' financial position is not expected to deteriorate in 1997. The aggregate farm operator debt-to-asset ratio is projected at less than .20 at the end of 1997, as farm asset values are anticipated to rise more rapidly than debt. The farm operator debt-to-asset ratio appears to reflect improvement in farm financial conditions.

However, substitution of maximum debt into the debt-to-asset ratio computation indicates that improvement due to rising asset values may be potentially offset by lower cash incomes. The maximum debt-to-asset ratio that could be supported from current cash income is expected to fall from .40 in 1996 to less than .35 in 1997. This is the lowest level for this measure since 1984. The difference between actual and maximum debt-to-asset ratios suggests that farmers, in total, appear to have the capability to safely acquire additional debt. However, lower income available to service debt, coupled with lenders' emphasis on loan approval based on repayment ability rather than collateral values, will probably restrain any increase in farmers' borrowing activities.

Figure 7

Farm borrowing is below estimated credit limits



Values for 1996 and 1997 are forecasts.

Interest Rates on Farm Loans Declined in 1996

Stable to slight increases expected for 1997.

Annual Interest Rates Declined From 1995 to 1996

As expected, interest rates on new debt trended gently downwards from 1995 to 1996. A comparison of annual averages for 1995 and 1996 showed decreases in both short- and long-term interest rates in the major money and capital markets as well as farm credit markets. A comparison of fourth-quarter averages for 1995 and 1996 shows short-term government and nonfarm business loan rates (bank prime and 6-month U.S. Treasuries) declined as expected (appendix table 4). Long-term Treasury rates increased (appendix table 5). In the agricultural credit markets, within-year changes showed slight increases of 50 basis points or less from the first to the fourth quarter of 1996.

Interest rates in the farm sector reflect rate movements in the major money and capital markets. This is because these rates represent both an explicit and implicit or opportunity cost of lending to farmers. Farmers have to compete for loan funds with the U.S. government, the largest borrower in the world. Thus when interest rates on U.S. Treasuries increase, the explicit cost of bank lending increases as well. U.S. Treasuries, other government debt, corporate bonds, nonfarm business and consumer loans represent alternative investments to farm lending. Their interest rates represent returns to nonfarm lending. Hence when these nonfarm rates increase, this increases the bank's implicit or opportunity cost of lending to farmers. Farm rates must increase as well in order to compete for credit.

The relatively stable interest rates in the nonfarm and farm credit markets have been due to moderate U.S. economic growth that led to low inflationary expectations.

Stable farm interest rates contributed to a stable farm sector debt repayment capacity. Interest expenses were 17 percent of net cash income in 1996 (appendix figure 3). This ratio continues in the 15- to 20-percent range as it has since 1988, contrasted to a high of 36.8 in 1981 at the beginning of the farm financial crisis.

Relatively Stable Farm Interest Rates Expected for 1997

Farm loan interest rates are expected to average slightly lower in the first half of 1997 and move slightly upward in the latter half. This is the opposite of what occurred in 1996.

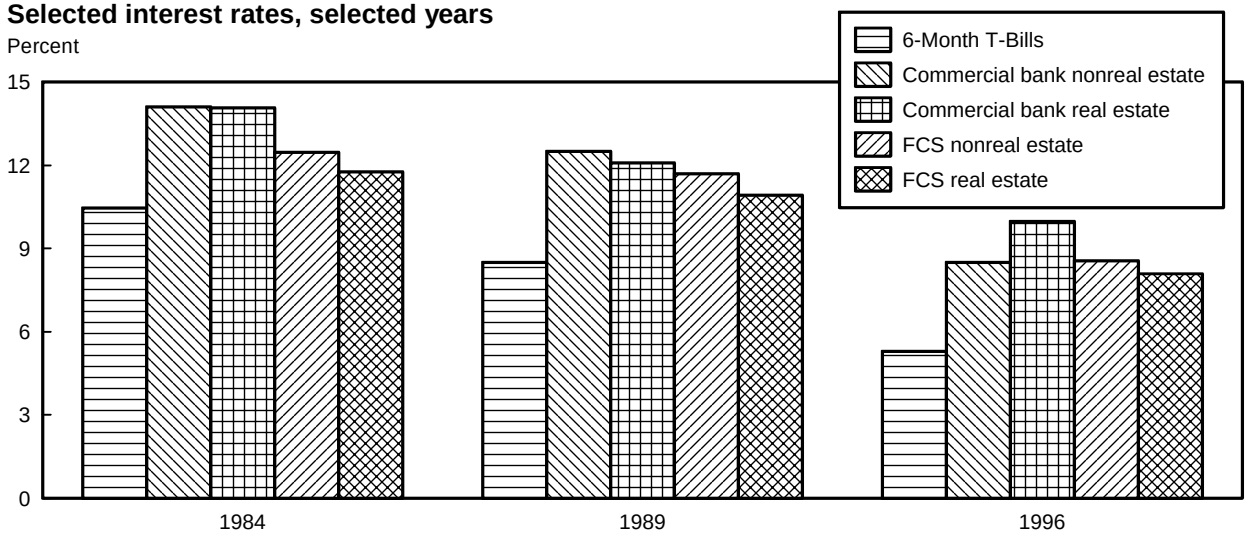
Interest rates are expected to fall in the first half of 1997 due to: 1) a slowing economy and continued low inflation; 2) a desire by agricultural banks to increase their farm loan-to-deposit ratios; 3) the decline in economy-wide interest rates in the fourth-quarter of 1996, which should be reflected in lower farm loan rates in the first half of 1997; 4) stronger farm balance sheets; and 5) a continued slowdown in the growth of consumer credit which should expand bank funds available for farm lending.

Economic growth and inflationary expectations should increase slightly in the latter half of 1997, raising farm loan rates as well. Economic growth will then increase as consumer spending picks up. Inflation will increase due to a tightening in labor markets.

Stable interest rates reduce the need for farmers to make investment decisions that rely on interest rate predictions (e.g. borrow this year to replace a tractor or wait until next year when interest rates might be lower). Stable interest rates will also lower the risk premium on farm loans and lowers the need for lenders and farmers to learn and adapt new interest rate risk management strategies.

Figure 8

Selected interest rates, selected years



Agricultural Banks Remain Highly Profitable

Farm banks have significantly reduced their delinquent loan portfolio.

Agricultural banks were very profitable in 1996. Low loan loss provisions and good interest rate spreads supported large profits for agricultural lenders. An annualized mid-1996 rate of return on assets (ROA) of 1.3 percent exceeded the strong 1995 average (table 6). Return on equity (ROE) increased to 12.3 percent.

Continued strength in ROA reflects substantial loan quality in farm bank loan portfolios. Loans in nonperforming status at midyear were 1.3 percent of total loans (table 4), slightly above the industrywide average of 1.1 percent (appendix table 6). As measured by ROA and loan quality, agricultural banks also matched the performance of the small nonagricultural banks to which they are often compared.

As farmers continued to slowly assume more debt, this helped raise loan-to-deposit ratios at agricultural banks from 65.5 to 66.5 percent over the past year. Because this is an average, higher loan ratios at some small banks may lead their managers to consider slowing lending activity. But several surveys suggest that most agricultural bankers have the capacity and willingness to extend additional farm credit.

What Is an Agricultural Bank?

The Board of Governors of the Federal Reserve System (FRB) classifies a bank as agricultural if its ratio of farm loans to total loans exceeds the unweighted average of the ratio at all banks on a given date--17.00 percent on June 30, 1996 (table 5). The Federal Deposit Insurance Corporation (FDIC) criterion is a constant 25-percent ratio of agricultural loans to total loans. Unless otherwise indicated, the FRB agricultural bank definition is used throughout this report. Most farm banks retain much larger agricultural shares in their loan portfolios and therefore remain sensitive to conditions in the agricultural sector of the economy. Farm loans averaged 36 percent of total loans at all farm banks in 1996, and reached 48 percent for farm banks with below $25 million in assets (table 7).

Because the dollar amount of outstanding farm loans typically peaks in the summer and declines the rest of the year as production loans are paid down, the use of June data rather than end of year in the last column of table 5 distorts recent trends in the number of agricultural banks. For the 6 months ending June 30, 1996, farm banks declined by only 13 to 3,338 using the FRB definition and by 7 to 2,635 using the FDIC definition. Comparing June 1996 to June 1995 (not shown in the table) shows much larger declines under both definitions; 150 fewer FRB farm banks and a drop of 154 following FDIC's approach to counting agricultural banks. The trend toward fewer agricultural banks reflects an industrywide drop in the number of commercial banks over the last decade due to mergers and failures.

Farm Loan Quality Continues To Improve

Farm loan quality continued to look solid through the first half of 1996. Only 1.6 percent of all commercial bank agricultural production loans were delinquent (table 2). This was up from 1.3 percent as of June 1995.

Net chargeoffs of farm production loans increased to $43 million (table 3) at all commercial banks in the first 6 months of 1996 from $12 million in first-half 1995 (not shown), but this number remains negligible relative to outstanding loans and chargeoffs observed during the farm crisis of the mid-1980s. Loan loss provisions remained at 0.3 percent for agricultural banks, reflecting management's continued positive outlook for future loss rates (table 6).

Profitability Surpasses 1995 Results

Agricultural bank profits grew in 1996, with ROA reaching 1.3 percent and an overall rate of return on equity (ROE) of 12.3 percent, both annualized from midyear figures. ROE for small nonagricultural banks exceeded the midyear ROE for agricultural banks, but their ROA was slightly lower. Agricultural banks maintained higher average capital-to-asset ratios during 1996. Their larger capital ratios help to explain why, on average, they had a larger ROA but a smaller ROE compared with small nonagricultural banks.

Agricultural banks' loan-to-deposit ratios increased to 66.5 percent, compared with 70.5 percent at small nonagricultural banks. The ratio of loans to assets, 56.9 percent at agricultural banks and 60.2 percent at small nonagricultural banks, reveals the relative bank liquidity of these two groups. Both are highly liquid and eager to make additional loans, but expect loan demand to remain stable.

Two agricultural banks failed in 1996 (appendix table 8), and none failed in 1995. This reflects continued improvement in farm bank loan quality and wide net interest margins, but also follows national trends of a solid recovery in the banking industry. Total nonagricultural bank failures dropped to 3 in 1996 from 5 in 1995. Only 5 agricultural banks and 4 nonfarm banks were categorized as weak at midyear, compared with 4 and 6, respectively, at the end of 1995 (appendix table 7).

Strong profits and loan quality, and low expectations for future loss rates, allowed commercial banks to keep loan loss provisions at low levels.

Table 4—Nonperforming loans as a percentage of total loans, by type of bank, 1988-96 1/

Type of bank	1988	1989	1990	1991	1992	1993	1994	1995	1996
					Percent				
Agricultural									
Total nonperforming 2/	2.7	2.3	2.0	1.9	1.8	1.4	1.1	1.1	1.3
Past due 90 days 3/	.8	.7	.6	.6	.6	.4	.4	.4	.5
Nonaccrual	1.9	1.5	1.3	1.3	1.2	1.0	.7	.7	.8
Small nonagricultural 4/									
Total nonperforming 2/	2.2	2.1	2.0	2.3	2.0	1.7	1.3	1.1	1.0
Past due 90 days 3/	.7	.7	.6	.7	.5	.4	.3	.3	0.3
Nonaccrual	1.5	1.4	1.4	1.6	1.5	1.3	1.0	.8	0.7

1/ Data are weighted by bank asset size using month-end June balances. 2/ Columns may not equal totals due to rounding. 3/ Still accruing interest. 4/ Banks with less than $500 million in assets that were not agricultural by the Federal Reserve Board definition.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 5—Number of agricultural banks, by definition, 1988-96 1/

Item	1988	1989	1990	1991	1992	1993	1994	1995	1996 2/
Commercial banks (Number)	12,961	12,635	12,270	11,849	11,400	10,917	10,400	9,825	9,572
FRB Agricultural banks (Number)	4,337	4,180	4,067	3,952	3,851	3,723	3,548	3,351	3,338
FRB farm loan ratio (Percent)	15.73	15.84	15.94	16.57	16.73	17.04	17.00	16.83	17.00
FDIC Agricultural banks (Number)	3,236	3,172	3,090	3,116	3,019	2,947	2,826	2,642	2,635

1/ Includes domestically chartered, FDIC-insured commercial banks with deposits, assets, and loans. 2/ 1996 figures are for June 30, all others are December 31.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System (FRB).

Table 6—Selected bank performance measures, by type of bank, 1988-96 1/

Performance measure	1988	1989	1990	1991	1992	1993	1994	1995	1996 2/
					Percent				
Rate of return on equity capital									
Agricultural banks	10.0	10.7	10.7	11.4	13.1	12.8	12.1	11.9	12.3
Nonag small banks	8.7	10.1	8.5	9.1	12.0	12.9	12.8	13.0	13.0
Rate of return on assets									
Agricultural banks	.9	1.0	1.0	1.0	1.2	1.2	1.2	1.2	1.3
Nonag small banks	.7	.8	.7	.7	1.0	1.1	1.1	1.2	1.2
Provisions for loan losses as a percentage of loans									
Agricultural banks	.8	.7	.5	.5	.4	.3	.2	.3	.3
Nonag small banks	.9	.8	1.0	1.0	.8	.5	.4	.3	.4
Capital as a percentage of assets									
Agricultural banks	10.0	10.1	9.9	10.1	10.4	10.9	10.8	11.3	11.2
Nonag small banks	8.8	9.0	9.0	9.2	9.6	10.1	10.1	10.6	10.6

1/ Rate of return on equity is net income after taxes as a percentage of the average of total equity capital at the beginning and end of the year. Rate of return on total assets is net income after taxes as a percentage of total assets on December 31. 2/ 1996 ratios are June 30 data, annualized.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Small Agricultural Banks Are the Biggest Farm Lenders

Agricultural banks with assets up to $300 million hold over half of all commercial bank farm loans, but nonagricultural bank shares increased slightly.

Both agricultural and nonagricultural banks increased the total value of their farm lending portfolios during June 1995-June 1996. However, agricultural banks reported only a $0.9-billion increase, the same as between June 1994 and June 1995. The $1.1-billion gain over 1995 for nonagricultural banks left them with 44.8 percent of commercial bank farm loans (table 7), a 0.4-percent increase from the previous year.

The largest size class of nonagricultural banks holds over one-quarter of all commercial bank farm debt (table 7). With less than 18 percent of this debt, the other nonagricultural bank classes trail the combined 21.2 percent market share of the two smallest classes of agricultural banks.

Solvency Measures Look Good for All Bank Groups

Bank capital reduces the risk of bank failure by cushioning losses and supports liquidity by maintaining borrower confidence. Capital-to-asset ratios for midyear 1996 show that commercial banks--regardless of size--are solvent (table 8). Small commercial banks had capital-to-asset ratios ranging from 10.9 to 12.8 percent, compared with 10.2 to 10.6 percent for the three largest bank categories. A narrower measure, the ratio of equity capital to assets, averaged 12.8 percent of assets for the smallest banks, but only 7.5 percent for the highly leveraged banks with assets above $500 million.

Loan-to-deposit ratios suggest that small commercial banks are more liquid than larger banks. However, nondeposit funding sources and secondary markets for loan sales have weakened the loan-to-deposit ratio's traditional role as a liquidity measure. Some banks hold more loans, resulting in higher loan-to-deposit ratios. Other banks reduce risk and their loan-to-deposit ratios by selling loans and acquiring securities instead. Large banks use nondeposit sources of loanable funds liberally, as witnessed by their much lower value of deposits as a percentage of liabilities (table 8). This ratio was about 72 percent for the largest banks, but above 90 percent for all other size categories.

Largest Banks Most Profitable

Large banks lend a greater percentage of their asset base, but they typically earn lower rates of return on those assets (ROA) than do smaller banks. However, in the first part of 1996 the smallest banks registered the lowest ROA and the best result came from banks with $300-$500 million in assets. Large banks improved their profitability in part due to continued reductions in real estate loan problems. As of June 30, 1996, 1.4 percent of big bank real estate loans were nonperforming (appendix table 6), down from 1.8 percent a year earlier. Rate of return on equity (ROE) increased uniformly with bank size (table 9), helped by greater leverage in the larger banks.

The smallest banks, those with $25 million or less in assets, include 1,067 agricultural banks and 589 nonagricultural banks (table 7). The smallest agricultural banks provided 7 percent of commercial bank loans to agriculture. Agricultural banks achieved an average annualized ROA of 1.26 percent and ROE of 12.31 percent. Agricultural banks with less than $25 million in assets earned an ROA of 1.18 percent, compared with only 0.68 percent for nonagricultural banks of that size class.

Current Banking Issues

Interstate banking and branching legislation that became law in 1994 permits interstate branching through bank mergers beginning in June 1997 unless a State passes legislation opting out of interstate branching. While interstate banking will increase the pace of bank consolidation, agricultural banks are typically too small to attract attention from the mostly large banks that will actively participate in interstate banking.

In 1996 Congress again came close to revising the Glass-Steagall Act, which limits bank activity in the insurance and securities industries, and during the current session may make a further attempt to address this issue. Revised regulations from the Federal Reserve and Office of the Comptroller of the Currency accomplished part of the task by making it easier for banks to provide new services through affiliates or subsidiaries. Prospects for a comprehensive legislative solution are complicated by conflicts between the banking, insurance, and securities industries, and between small and large banks. Many small bamks fear that removing all Glass-Steagall barriers would concentrate economic power in a few giant, noncompetitive firms.

By reaching mandated levels of reserves in its deposit insurance fund years before thrifts were expected to do so, banks gained a competitive advantage through lower deposit insurance premiums. A 1996 law used a special assessment on thrift deposits to replenish the thrift insurance fund. Rather than immediately merging the two insurance funds, a study will be conducted with the intention of creating a new bank charter that will include thrifts.

Banks opposed the Farm Credit System (FCS) proposal to sponsor a credit union in Wisconsin that would have served member borrowers of FCS, rather than FCS employees. Congress passed legislation that blocks FCS from creating such a credit union. The banking industry also won court battles against what they perceived as unfair extensions of credit union common bond requirements, but this fight will continue in 1997.

Legislative proposals to improve commercial bank access to funds from the Federal Home Loan Banks and from FCS banks did not succeed in 1996. It is not yet known whether similar proposals will move forward this year. Banks will definitely lobby against any new attempts to gain expanded powers for FCS institutions.

Small agricultural banks still hold the majority of farm loans, despite the declining number of agricultural banks.

Table 7—Agricultural lending of agricultural and nonagricultural banks, by bank size, June 30, 1996 1/

Total assets	Agricultural banks					Nonagricultural banks				
	Banks	Total ag loans	Avg. ag loans	Ag lending share 2/	Ag loans/ total loans	Banks	Total ag loans	Avg. ag loans	Ag lending share 2/	Ag loans/ total loans
Million dollars	*Number*	*---Million dollars---*		*-----Percent-----*		*Number*	*---Million dollars---*		*----Percent----*	
Under 25	1,067	4,604	4.3	7.0	48.2	589	299	0.5	0.5	5.7
25-50	1,124	9,368	8.3	14.2	41.5	1,178	1,175	1.0	1.8	4.6
50-100	788	11,229	14.2	17.1	36.5	1,646	2,732	1.7	4.2	3.8
100-300	328	8,685	26.5	13.2	31.1	1,828	5,401	3.0	8.2	2.9
300-500	22	1,286	58.4	2.0	26.1	351	1,813	5.2	2.8	2.2
Over 500	9	1,166	129.5	1.8	21.2	642	18,050	28.1	27.4	0.8
Total	3,338	36,338	10.9	55.2	35.9	6,234	29,470	4.7	44.8	1.1

1/ Figures are weighted within size class. 2/ This represents the percentage of total commercial bank agricultural loans held by this size group of banks.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 8—Selected commercial bank solvency and liquidity ratios, by bank size, June 30, 1996 1/

Total assets	Banks	Capital/ asset 2/	Equity/ asset	Loan/ deposit	Loan/ asset	Deposit/ liability
Million dollars	*Number*	*----------Percent----------*				
Under 25	1,656	12.8	12.1	62.8	54.0	97.6
25-50	2,302	11.3	10.5	65.0	56.7	97.3
50-100	2,434	10.9	10.0	67.3	58.4	96.5
100-300	2,156	10.5	9.5	70.2	60.1	94.7
300-500	373	10.2	9.0	74.9	62.0	91.2
Over 500	651	10.6	7.5	93.4	61.7	71.8
Total	9,572	10.6	7.9	88.1	61.3	75.8

1/ Weighted average within size class. 2/ Total capital includes equity capital, allowance for loan and lease losses, minority interest in consolidated subsidiaries, subordinated notes and debentures, and total mandatory convertible debt.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Table 9—Selected commercial bank profitability and efficiency measures, by bank size, June 30, 1996 1/

Total assets	Return on assets 2/	Return on equity 3/	Asset utilization 4/	Noninterest income to total income	Interest expense to total expense	Interest expense to interest income
Million dollars			*Percent*			
Under 25	1.00	8.41	8.30	11.32	48.16	43.90
25-50	1.16	11.14	8.35	9.76	51.70	44.52
50-100	1.24	12.41	8.36	9.80	52.08	44.22
100-300	1.27	13.18	8.75	14.29	48.79	43.46
300-500	1.28	13.92	8.95	17.10	48.05	43.94
Over 500	1.14	14.37	9.11	24.93	48.18	49.27
Total	1.16	14.01	9.03	22.93	48.43	48.22

1/ All ratios are on an annualized basis and weighted within class size. 2/ Rate of return on assets is net income after taxes as a percentage of total assets. 3/ Rate of return on equity is net income after taxes as a percentage of total equity. 4/ Asset utilization is gross income as a percentage of total assets.

Source: Calculated from the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Farm Credit System Loan Volume, Profits, and Loss Reserves Rise

The Farm Credit System's loan volume growth continues as profits stay healthy. Exposure to credit risks associated with certain hedgimg contracts, drought on the Southern Plains, and a cost/price squeeze in the cattle industry spur increases in loan loss reserves.

The Farm Credit System (FCS) entered 1997 in strong financial condition. Loan volume and loan portfolio quality have improved. Earnings rebounded from last year, and capital levels continue to rise. Nonperforming assets continue to decline despite a cost/price squeeze in the livestock sector and smaller harvests of some major commodities in 1995.

FCS income has surpassed $1 billion each year since 1993 and, in all likelihood, will again in 1996 (table 11). Net income before extraordinary items increased nearly 5 percent for the first 9 months of 1996 despite an increase in provisions for future loan losses of $61 million. The increased reserves reflect additional risks of loans to

- some cooperatives because of potential losses associated with certain hedging contracts,
- livestock producers confronting higher feed costs and lower livestock prices,
- cooperatives affected by higher grain costs, and
- borrowers who experienced drought or other adverse weather conditions last year.

Since 1990, FCS net income has been dominated by strong performance in net interest income. Net income remained solid again in 1996. The increase in net income resulted from increases in both net interest and noninterest income and decreases in noninterest expenses. The total annualized interest rate spread remained constant at 3.02 percent for the first 9 months of 1996, the same as the year earlier figure. This spread remains high enough to support growth in loan volume and retained earnings.

For the last 2 years, the FCS has experienced an inflation-adjusted increase in total loan volume (table 10). FCS loan volume grew 4.0 percent during the first 9 months of 1996. Long-term real estate loans bounced back to levels not seen since 1989. Short- and intermediate-term loans also experienced substantial growth, but loans made directly to cooperatives or for their benefit (largely loans made in connection with international transactions) declined.

Capital adequacy has been a major regulatory concern (see below). By September 30, 1996, FCS at-risk capital, including loss allowances and the FCS insurance fund, stood at $12.2 billion or 20 percent of loans outstanding (table 12). Combined surplus capital and loss allowances now exceed the 1985 peak of $6.9 billion by 32 percent despite the 13-percent decline since 1985 in loan volume.

Nonperforming loans (nonaccrual loans plus accrual loans over 90 days past due) continue to decline in dollar terms and as a percent of loans outstanding (table 12). Such loans stood at $769 million on September 30, 1996, 17 percent below a year earlier. Nonperforming loans accounted for 1.26 percent of total loans outstanding.

FCA Proposes Regulatory Changes for Capital and Borrower Eligibility

The Farm Credit Administration (FCA) is an independent agency of the Federal government that was reorganized in 1985 as an arm's length regulator for the Farm Credit System. FCA's board of directors, all of whose members are now former FCS officials, has established regulatory reform as a major priority. Major regulatory initiatives in 1996 included reforming regulations concerning capital adequacy, and eligibility and scope of financing.

Final capital adequacy rules call for establishing a core surplus standard of 3.5 percent and a total surplus standard of 7 percent for FCS institutions, require FCS banks to maintain a ratio of eligible collateral to liabilities of 103 percent, and add procedures to establish capital standards for individual institutions when warranted by higher risk and for the issuance of capital directives. In computing the total surplus, the double-counting of associations' investment in their affiliated banks is eliminated according to permanent capital allotment agreements. Additional allowances are made to accommodate IRS rules for cooperatives regarding distribution of earnings. Existing permanent capital requirements continue in effect, but institutions that do not satisfy the new surplus and collateral standards on the effective date of the regulations are required to develop and implement a plan for building surplus to attain the standards within a reasonable time.

Final rules for eligibility and scope of financing include new regulations affecting loans to farmers, financing of processing or marketing operations, loans to farm-related businesses, nonfarm rural home loans, and eligibility and scope of financing for Banks for Cooperatives (BC's) and Agricultural Credit Banks (ACB's). Some restrictions that were imposed by FCA regulations but not required by law are deleted, and statutory changes required by recent legislation are implemented.

In contrast to earlier proposals, the regulatory definition of a bona fide farmer is essentially unchanged in the final regulation. However, restrictions on financing to legal entities, to certain foreign nationals, and for marketing, processing, and farm-related business loans are eased. Definitions related to nonfarm rural home lending are tightened and harmonized with Federal Agricultural Mortgage Corporation (Farmer Mac) standards. Finally, the rules implement provisions concerning BC and ACB financing for: (1) agricultural and related exports; (2) certain entities that facilitate the international business operations of eligible cooperatives; (3) rural electric and telecommunication utilities; and (4) water and waste disposal facilities.

Table 10—Farm Credit System loan volume, by loan type, December 31, 1990-95 and September 30, 1996

Loan type	1990	1991	1992	1993	1994	1995	1996
				Billion dollars			
Long-term real estate	29.42	28.77	28.66	28.46	28.40	28.43	29.58
Short and intermediate term	10.67	11.22	11.11	11.59	12.39	13.80	15.19
Loans to or for the benefit of cooperatives	11.08	11.47	12.63	13.86	13.89	16.36	16.14
Total	51.17	51.46	52.40	53.91	54.68	58.59	60.91

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Table 11—Farm Credit System income statement, December 31, 1990-95 and September 30, 1996

Item	1990	1991	1992	1993	1994	1995	1996 1/
				Billion dollars			
Total interest income	6.13	5.51	4.72	4.35	4.68	5.59	5.78
Interest expense	-4.89	-3.95	-2.93	-2.39	-2.72	-3.57	-3.61
Net interest income	1.24	1.56	1.79	1.96	1.96	2.02	2.17
Provision/reversal for loan losses	0.04	-0.05	-0.02	-0.04	-0.05	- 0.04	-0.13
Loss/gain on other property	0.03	0.02	0.01	0.00	0.00	0.00	0.01
Other income	0.16	0.16	0.22	0.21	0.14	0.17	0.20
Other expense	-0.75	-0.79	-0.82 2/	-0.84	-0.92 3/	-0.84 4/	-0.80
Debt repurchase	-0.04	0.00	-0.04	-0.02	0.00	-0.01	0.00
Taxes	-0.07	-0.09	-0.15	-0.15	-0.13	-0.14	-0.17
Net income	0.61	0.81	0.99	1.11 5/	1.01	1.17	1.27

1/ Annualized rate based on first three quarters' performance. 2/ Includes $.028 billion in one-time merger implementation costs associated with the Agribank merger. 3/ Includes $.072 billion in one-time merger implementation and restructuring costs. 4/ Includes $.006 billion in one-time merger implementation and restructuring costs. 5/ Does not include one-time net income of $104 million from changes in accounting for income taxes and nonpension post retirement benefits.

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Table 12—Farm Credit System financial indicators, December 31, 1990-95 and September 30, 1996

Item	1990	1991	1992	1993	1994	1995	1996
				Percent			
At-risk capital/total loans 1/	11.95	14.09	15.91	17.87	19.06	19.42	20.04
Percent of loans in nonaccrual status or over 90 days past due	5.39	4.70	3.84	2.76	1.95	1.42	1.26 2/
Other expense/total loans 3/	1.46	1.53	1.51	1.56	1.55	1.41	1.33 2/

1/ At-risk capital includes allowances for losses on acquired property and loans, surplus and unprotected borrower stock and participation certificates, and the FCS Insurance Fund. 2/ Annualized rate based on first three quarters' performance. 3/ Excludes one-time merger implementation and restructuring costs.

Sources: Federal Farm Credit Banks Funding Corporation, Farm Credit System Annual Information Statement and Farm Credit System Quarterly Information Statement, various dates.

Districts' Performance Varies Amid Continued Strong Farm Credit System Performance

Net income, total lending, loan portfolio quality, and total at-risk capital generally improve, but some exceptions exist.

As of September 30, 1996, the FCS institutions that lend directly to farmers included an Agricultural Credit Bank (ACB), five district Farm Credit Banks (FCB's), and their related, local lending associations. The system-level statistics hide differences in performance among FCS districts. This section compares the performance of the FCS banks and their related associations for the 9 months ending September 30, 1996, and September 30, 1995.

Aggregate nonaccrual loans decreased 20 percent for the year ending September 30, 1996, marking the fifth year of impressive improvements in loan portfolio quality. Previously, aggregate nonaccrual loans had fallen 23 percent (for the year ending September 30, 1995), 27 percent (for the year ending September 30, 1994), 23 percent (for the year ending September 30, 1993), and 18 percent (for the year ending September 30, 1992). An exception to this trend was the St. Paul BC, which experienced a ninefold increase in nonaccrual loans, although its ratio of nonaccrual to total loans remains low (0.86 percent) compared with the aggregate level (1.18 percent). No districts have ratios exceeding 2 percent.

At-risk capital continues to accumulate faster than loans outstanding. At-risk capital measures all resources that can be liquidated without impairing bondholders. Such resources include unprotected borrower stock and allowances for losses on loans as well as surplus. The all-district level of at-risk capital increased 7.13 percent, while the all-district ratio of at-risk capital to total assets remained constant at about 16.5 percent, despite substantial growth in assets.

The ratio of at-risk capital to total assets is a measure of the cushion between stockholders and bankruptcy. This ratio exceeded 17 percent for each district not engaged in lending to cooperatives. Both CoBank and the St. Paul BC maintained lower capital-to-asset ratios of 9.8 and 11.6 percent, respectively. Most districts (AgAmerica, AgFirst, AgriBank, Texas, Wichita) allowed their ratios of at-risk capital to assets to decrease slightly over the year. The St. Paul BC substantially increased its ratio of at-risk capital to assets, reversing a decrease in 1995 that followed rapid business expansion.

Systemwide net income before taxes and extraordinary items rose nearly 10 percent from a year earlier for the 9 months ending September 30, 1996, but this increase was unevenly distributed across FCS banks and districts. Net income fell in two districts (Wichita and Western), while net income rose substantially in three districts (AgAmerica, AgFirst, and CoBank) and the St. Paul BC. The fall in net income in the Western district (-20.22 percent) was caused by a reversal in loan loss provisions of $28 million; operating income in that district is not falling. The large increase in net income in the AgFirst district (25.8 percent) stems from increases in interest and noninterest income and decreases in interest, personnel, and restructuring expenses (figure 10).

Net income growth was reduced by larger than usual provisions for loan losses. These increases are concentrated in the AgAmerica, AgriBank, and Texas districts and at CoBank and the St. Paul BC.

Districts Continue Efforts To Increase Loan Volume

Total loan volume ranged from $15.3 billion at CoBank to $2.3 billion at the St. Paul BC (table 13). Among banks (and related associations) serving primarily agricultural producers, AgriBank remained the largest with loan volume of $15.1 billion, but Texas is now smaller than Wichita with $3.9 billion in loans. The Wichita district showed impressive growth, gaining 13.1 percent, compared with aggregate loan volume growth of 6.4 percent. The St. Paul BC was the only district or bank where loan volume fell (down 2.1 percent) following 35 percent growth the previous year.

Wichita loan volume increased for three primary reasons: (1) purchase of a $73.5-million participation interest in a seasoned loan portfolio owned by the Oklahoma Commissioner of Land Office, (2) increases in participation activity with other FCS institutions and Other Financial Institutions (OFI's), and (3) increased Production Credit Association (PCA) loan volume including the effect of the Southern New Mexico PCA reaffiliating with the Wichita district from the Texas district on July 1, 1996. This change in affiliation accounts for the change in ranking between the Texas and Wichita districts and for much of the below average loan growth experienced by the Texas district during the period. Increased volume in the AgAmerica and AgFirst districts was attributed to increased marketing efforts, competitive pricing, and increases in large commercial and retail loans.

Again in 1996, various FCS institutions initiated activities to improve loan growth and customer services. Such initiatives include a toll-free customer service network through MCI for AgriBank and the "FCS Commercial Finance Group" which will allow associations in Minnesota, Wisconsin, and North Dakota to make larger loans. Other initiatives were terminated during 1996, including Western's agreement to pool loans for Farmer Mac, an application to provide real estate brokerage, farm management, and mineral management services by AgriBank, and the Countryside Credit Union designed to serve FCS borrowers in Wisconsin.

Nonaccrual loans continue to fall dramatically in many districts; St. Paul Bank for Cooperatives is the big exception. Net incomes and total at-risk capital generally improve.

Table 13—Farm Credit System district-level financial statistics

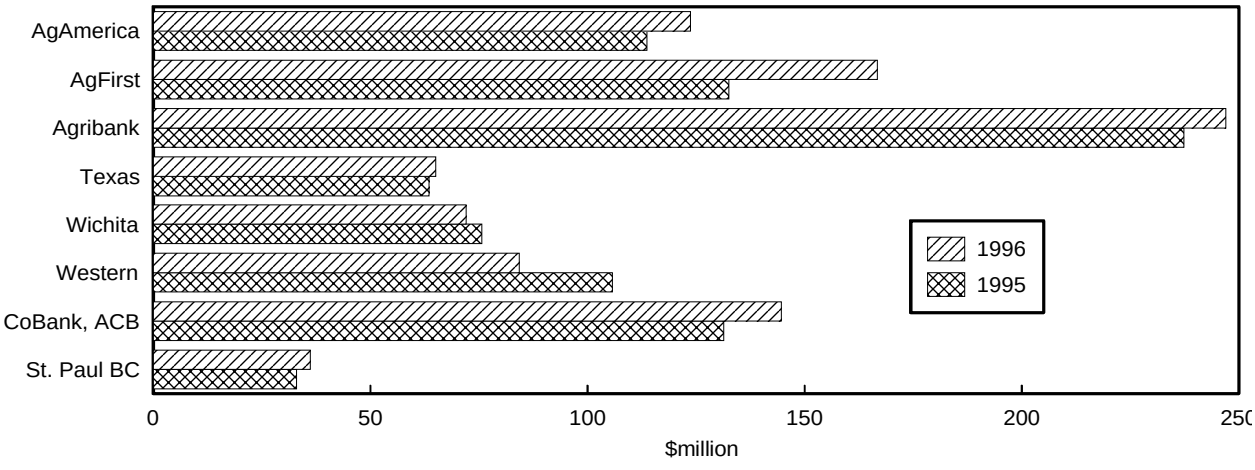
	Total loans	Nonaccrual loans	Nonaccrual loans' share	Net income before taxes and extraordinary items	Total at-risk capital 1/	At-risk capital/ assets
	$1,000	*$1,000*	*Percent*	*$1,000*	*$1,000*	*Percent*
	----------Nine months ending September 30, 1996----------					
AgAmerica 2/	7,185,770	139,526	1.94	123,770	1,567,635	19.82
AgFirst 2/	9,297,383	129,762	1.40	166,756	2,036,879	18.94
Agribank	15,094,301	221,183	1.47	247,018	3,185,441	17.43
Texas	3,946,626	49,185	1.25	65,021	988,932	22.31
Wichita	4,069,803	54,220	1.33	72,037	1,053,594	22.42
Western	4,949,578	74,341	1.50	84,321	1,082,918	18.73
CoBank, ACB 2/	15,329,955	47,673	0.31	144,631	1,787,201	9.82
St. Paul BC	2,262,229	19,521	0.86	36,173	312,682	11.56
All Districts	62,135,645	735,411	1.18	927,238	11,972,576	16.47
	----------Nine months ending September 30, 1995----------					
AgAmerica 2/	6,689,022	196,021	2.93	113,652	1,440,914	20.09
AgFirst 2/	8,793,912	167,440	1.90	132,559	1,936,211	19.23
Agribank	13,864,926	311,116	2.24	237,351	2,945,767	17.51
Texas	3,866,629	50,726	1.31	63,480	994,513	23.57
Wichita	3,597,762	50,466	1.40	75,631	955,459	22.93
Western	4,678,829	89,951	1.92	105,693	1,020,389	18.73
CoBank, ACB 2/	14,614,962	44,662	0.31	131,305	1,655,691	9.59
St. Paul BC	2,311,411	2,181	0.09	33,021	269,673	9.68
All Districts	58,417,453	912,563	1.56	843,267	11,175,400	16.46
	----------Percent change, September 30, 1995 to September 30, 1996----------					
AgAmerica 2/	7.43	-28.82	-33.74	8.90	8.79	-1.33
AgFirst 2/	5.73	-22.50	-26.70	25.80	5.20	-1.53
Agribank	8.87	-28.91	-34.70	4.07	8.14	-0.49
Texas	2.07	-3.04	-5.00	2.43	-0.56	-5.36
Wichita	13.12	7.44	-5.02	-4.75	10.27	-2.21
Western	5.79	-17.35	-21.87	-20.22	6.13	0.02
CoBank, ACB 2/	4.89	6.74	1.76	10.15	7.94	2.41
St. Paul BC	-2.13	795.05	814.51	9.55	15.95	19.48
All Districts	6.36	-19.41	-24.23	9.96	7.13	0.06

1/ At-risk capital includes allowances for losses on acquired property and loans, surplus and unprotected borrower stock. 2/ The former Spokane and Omaha FCB's merged on April 1, 1994, to form AgAmerica. The former CoBank and Springfield Banks for Cooperatives merged with the former Springfield Farm Credit Bank on January 1, 1995, to form CoBank, Agricultural Credit Bank. The former Columbia and Baltimore FCB's merged on April 1, 1995, to form AgFirst, FCB. To facilitate comparison, the performance of the districts is combined for periods before the merger.

Source: Federal Farm Credit Banks Funding Corporation, Summary Report of Condition and Performance of the Farm Credit System, various dates.

Figure 9

District net income for 9 months ending September 30



Life Insurance Company Farm Loan Portfolios Financially Healthy

Approximately $1.8 billion in new farm mortgage loans was closed in 1996; growth to continue in 1997.

Historically, agricultural real estate mortgages have been an important investment for life insurance companies and these institutions have been a key source of farm real estate loan funds. A total of 15,400 agricultural mortgage loans were held by 19 life insurance companies on June 30, 1996. During 1996, the quality of agricultural mortgage portfolios of life insurance companies was high.

Delinquencies at Low Level

The agricultural loan delinquency rate based on dollar volume was 2.92 percent on June 30, 1996, compared to a nonagricultural rate of 2.58 percent (table 14). This was the first year since 1991 that the agricultural rate exceeded the nonagricultural rate, but both rates are quite low. The agricultural rate now is the lowest since 1980. Some $282 million in life insurance company agricultural mortgage debt was delinquent on June 30, 1996, the lowest since 1980.

Foreclosures Rates Also Low

The share of agricultural mortgage loans in the process of foreclosure stood at 1.26 percent on June 30, 1996, and has been below the nonagricultural rate since 1991 (table 15). A total of $119.9 million in life insurance company farm mortgage loans was in the process of foreclosure on June 30, 1996, down from $227.3 million 5 years earlier. Agricultural mortgage loans in the process of foreclosure totaled 65 on June 30, 1996, down from 2,030 on December 31, 1986.

The number and dollar amounts of agricultural and nonagricultural loans actually foreclosed have been declining throughout the decade (table 16). They are now running at levels comparable to 1981. Agricultural mortgage loan foreclosures were only $73.3 million in 1995.

Important Trends Affect Lending

The life insurance industry's relationship with agriculture has changed rapidly in recent years. In spite of the changes, life insurance companies have been resilient lenders to the farm sector, occupying an important market segment. They held 11.2 percent of the farm mortgage debt (including operator households) at yearend 1996, compared with 12 percent when the USDA data series began in 1910, and a high of 25.1 percent in 1955-56. In 1996, the life insurance industry had its most active year in making farm loans since the farm financial crisis of the 1980s. Approximately $1.8 billion was closed in farm mortgage loans in 1996, excluding any portfolio transfers in the life insurance industry.

The number of life insurance companies making new farm mortgage loans declined from 12 in 1980 to 6 in late 1996, with most departures occurring in 1986. Metropolitan Life purchased the $327.5 million agricultural loan portfolio of MBL Life Assurance in December 1996. Nineteen companies now hold farm mortgages.

The six companies (Equitable, Metropolitan Life, Mutual of New York, Prudential, Providian, and Travelers) currently active in farm lending account for about 85 percent of the industry's farm mortgages and generally have both high total assets and large farm mortgage portfolios. They have virtually pulled out of the small- to medium-sized farm mortgage market in favor of more agribusiness, timber, and specialty enterprises. Companies are emphasizing larger ($500,000 or more) agricultural loans.

The concentration of life insurance farm mortgage holdings has been shifting away from the Corn Belt to the Southeast and Pacific Coast farm production regions. The share of the industry's outstanding mortgage volume in the Corn Belt declined from 23.5 percent in 1980 to 13.2 percent in 1995, while the Pacific region's share increased to 37 percent from 19.3 percent. At 1995 yearend (based on the most recent available State-level data), the Pacific region, Florida, and Texas together accounted for 54.1 percent of total outstanding dollar volume of life insurance farm mortgages.

The life insurance industry's relationship with agriculture has grown more complicated in recent years. Total loans held by life insurance companies is $9.2 billion. The industry also now holds $2.5 billion in direct farmland investments, up almost tenfold since 1979. The nominal average farm loan increased three times in size during 1980-96.

Outlook Is Generally Favorable

The life insurance industry continues to take a significant interest in farm real estate financing. There will be opportunities in 1997 for life insurance companies to make profitable farm mortgage loans, but the competition for the better-quality loans will continue to be keen, particularly from the FCS. Active companies continue to have sufficient loanable funds to meet demand and are aggressively competing on rate, terms, and loan-to-value ratio. The six companies active in the farm loan market continue to report that available funds exceed qualified agricultural applications. Total life insurance company farm loans outstanding are projected to increase slightly in 1997, for the fifth consecutive year.

Table 14—Life insurance company mortgage loan delinquencies, 1989-96 1/

End of month	Rates by number of loans		Rates by amount	
	Nonagricultural mortgages	Agricultural mortgages	Nonagricultural mortgages	Agricultural mortgages
	Percent			
1989 June	1.55	4.68	2.75	8.65
Dec.	1.68	2.68	2.37	4.74
1990 June	1.87	3.41	2.94	5.26
Dec.	2.10	2.40	3.60	4.22
1991 June	2.30	3.55	5.25	6.35
Dec.	2.66	2.34	5.79	3.84
1992 June	2.87	4.07	7.35	5.48
Dec.	3.05	2.64	6.50	3.33
1993 June	2.78	3.47	6.23	4.06
Dec.	2.84	1.99	4.48	2.21
1994 June	2.94	2.51	5.00	3.77
Dec.	2.81	1.27	3.34	2.60
1995 June	2.67	1.67	3.53	2.85
Dec.	2.51	1.14	3.43	2.72
1996 June	2.48	1.57	2.58	2.92

1/ Delinquent loans (including loans in the process of foreclosure). A delinquent loan is a nonfarm mortgage with interest payments in arrears at least 2 months (60 days if other than a monthly pay) or a farm loan with interest in arrears more than 90 days.

Table 15—Life insurance company mortgage loans in the process of foreclosure, 1989-96 1/

End of month	Rates by number of loans		Rates by amount	
	Nonagricultural mortgages	Agricultural mortgages	Nonagricultural mortgages	Agricultural mortgages
	Percent			
1989 June	.43	2.35	1.38	4.67
Dec.	.43	1.30	1.29	2.28
1990 June	.46	1.31	1.56	2.23
Dec.	.51	1.13	1.71	1.91
1991 June	.58	1.26	2.39	2.45
Dec.	.68	1.29	2.78	2.24
1992 June	.77	1.74	3.40	3.11
Dec.	.76	1.57	3.08	2.32
1993 June	.84	1.52	2.89	1.93
Dec.	.80	1.04	2.14	1.30
1994 June	.82	.97	2.46	1.04
Dec.	.82	.68	1.77	1.11
1995 June	.80	.62	2.05	1.02
Dec.	.68	.32	1.42	1.17
1996 June	.70	.42	1.52	1.26

1/ Reporting companies account for approximately 85 percent of the mortgages held by U.S. life insurance companies depending on the date of the survey. Loans in foreclosure include those on which foreclosure action has been authorized, including any involved in a subsequent filing of bankruptcy. Beginning in 1988, the loans in foreclosure category includes loans in redemption period.

Table 16—Life insurance company mortgage loans foreclosed, 1983-96 1/

Year	Nonagricultural mortgages		Agricultural mortgages	
	Number	*Thou. dollars*	*Number*	*Thou. dollars*
1983	868	114,993	306	347,002
1984	1,024	242,428	475	289,251
1985	1,033	328,558	1,000	530,235
1986	1,541	1,143,082	1,654	827,472
1987	2,048	1,580,027	1,515	691,914
1988	1,196	2,530,105	727	364,414
1989	1,098	2,178,949	356	204,361
1990	1,018	3,042,171	122	85,281
1991	1,284	4,942,349	125	94,875
1992	1,365	6,665,288	88	148,006
1993	1,159	6,013,084	79	96,318
1994	844	4,463,787	31	41,745
1995	640	3,055,039	21	73,258
1996 2/	225	1,166,023	6	2,684

1/ Loans foreclosed include those for which title to the property or entitling certificate was acquired during the period shown, either through foreclosure or voluntary conveyance in lieu of foreclosure. Dollar amounts include principal outstanding at the time of the foreclosure, amounts capitalized for interest, foreclosure costs and any advances made to protect the collateral. 2/ January 1 through June 30.

Source: American Council of Life Insurance, Investment Bulletin, various issues.

Legislation Reshapes Farm Service Agency Credit Programs

Credit quality improves as loan delinquencies and loan write-offs decline.

The 1996 Farm Act made extensive changes to FSA's farm credit programs, especially to its direct credit programs. The Act encourages "graduation" from FSA credit programs (that is, shifting from FSA credit programs to commercial credit sources) by placing stricter limits on the eligibility to borrow through FSA programs. For the direct Farm Ownership (FO) program, new loans can only be made to qualified beginning farmers, or those with less than 10 years of FSA borrowing experience.

Direct Operating Loan (OL) program eligibility is also more restrictive. These loans can only be made to farmers who have not operated a farm or ranch for more than 5 years or to applicants with no more than 6 years of direct OL borrowing experience. Transitional eligibility rules for existing FSA borrowers apply for both loan programs.

Direct FO loans used to refinance existing indebtedness are now prohibited. To facilitate graduation to commercial sources, FSA was authorized to make 95-percent guarantees of commercial loans used to refinance direct FO loans. Direct OL loans can still be used to refinance existing indebtedness, but this purpose is limited to those applicants who refinanced a direct or guaranteed operating loan fewer than five times before and who are existing direct OL program borrowers that have suffered a qualifying loss because of a natural disaster or are refinancing loans obtained outside FSA. FO or OL loans to finance nonfarm business purposes are no longer authorized.

Changes were made to the Emergency Disaster (EM) Program to reduce program costs. EM loans help farmers recover from actual production or physical losses inflicted by natural disasters in counties designated as disaster areas. Stricter eligibility requirements are now applied, asset valuation procedures have been revised, and the $500,000 cap on the program now applies to the total program indebtedness of the borrower instead of being just applied to a particular disaster.

Beginning Farmer Assistance and Other Changes

Numerous changes under the Act assist beginning farmers--those with less than 10 years experience operating a farm or ranch. FSA can now guarantee up to 95 percent of operating loans made to beginning farmers participating in its down payment loan program (section 310E), up from 90 percent before. And FSA may now provide direct farm ownership loans at as little as 4 percent interest under joint financing arrangements, where another lender provides 50 percent or more of the amount financed in a farm ownership transaction. The Act also specifies new guidelines for targeting annual lending authorities to qualified beginning farmers.

New loan servicing and debt restructuring rules are designed to increase the likelihood that debt restructuring will be successful in helping farmers stay in business, and to reduce the government's costs associated with these actions. Most noteworthy among the changes are rules that strictly limit a borrower to just one instance of debt forgiveness and make these borrowers ineligible for additional direct or guaranteed loans. An exception permits those borrowers that received a section 353 debt writedown to obtain OL loans for annual operating expenses. Also, borrowers with delinquent loan accounts are no longer eligible for new direct operating loans.

To expedite sales and reduce program costs, FSA's acquired property management and disposal rules were modified. FSA is no longer leasing acquired land and is selling the property under short timetables as it either comes into inventory or as existing leases expire. Beginning farmers still have priority when purchasing acquired properties, and can still obtain short-term leasing if program funding is not available to finance the purchase. If an acceptable offer is not obtained within 75 days of acquisition (60 days from an expiration of a lease) from a qualified beginning farmer, the property must be sold to the highest bidder at a public sale within 30 days or through a negotiated sale if an acceptable bid is not obtained. FSA's acquired real property totaled 530,000 acres and had an estimated market value of $243 million at fiscal 1996 yearend.

Outstanding Volume Drops

Total FSA direct program obligations in fiscal 1996 were up 50 percent from a year earlier, while total guaranteed obligations fell slightly (table 17). Program funding for fiscal 1997 is similar to that of 1996. The major exception is the direct FO program, which saw its funding drop from $90 million to $28 million (table 18). The majority of direct FO loans help beginning farmers purchase or improve farm or ranch land. In January 1997, the Secretary of Agriculture authorized the transfer of $2 million from the Fund For Rural America to the FO program to boost beginning farmer financing. The transfer will support an additional $9 million in FO lending authority.

FSA's outstanding direct lending program volume dropped nearly $1 billion from fiscal 1995 yearend (table 19). Outstanding direct volume is declining because principal repayments and loan writeoffs, especially in the EM and Economic Emergency (EE) program, are exceeding the amount of new obligations being made each year. The EE program has not been funded for over a decade. Direct loan volume outstanding could fall below $10 billion in 1997, while the number of borrowers served could fall from 118,000 to under 100,000 during the next year or two. In contrast, outstanding guaranteed loan volume rose nearly $400 million during the year, as obligation volume remained high at $1.8 billion (table 20).

Table 17—Farm Service Agency farmer program obligations, September 30, 1986 to September 30, 1996

Year 2/	Obligations 1/				Outstanding principal of farmer programs 3/
	Total	Direct (Insured)	Guaranteed	Share of total	
	Million dollars			*Percent*	*Mil. dol.*
1986	4,367.5	2,807.9	1,569.1	35.9	29,240.4
1987	3,080.5	1,515.0	1,587.4	51.5	28,147.6
1988	2,320.7	1,065.8	1,271.4	54.8	28,242.6
1989	2,229.6	1,030.1	1,199.5	53.8	26,525.6
1990	2,193.2	921.3	1,271.9	58.0	23,684.0
1991	2,124.1	633.7	1,490.4	69.2	21,992.1
1992	2,306.4	714.5 4/	1,591.9	69.0	20,460.6
1993	2,135.2	672.7 4/	1,432.5 5/	67.1	18,815.5
1994	2,725.6	881.9 4/	1,843.7 5/	67.6	18,040.1
1995	2,501.9	563.6 4/	1,938.3 5/	77.5	17,451.1
1996	2,683.2	832.3	1,850.9	69.0	16,940.5

1/ Obligations are the dollar amounts of funds loaned or guaranteed, including the dollar amount of interest rate assistance provided on guaranteed loans. 2/ Fiscal years. 3/ Total outstanding principal balance of guaranteed FSA loans and direct or insured FSA loans at yearend. 4/ Does not include credit sales of acquired property. 5/ Does not include guaranteed agricultural resource conservation demo loans.

Sources: Farm Service Agency, 616 Report, 4067C Report, and 205 Report, various issues.

Table 18—Farm Service Agency major farmer program apportionment and obligations, fiscal 1996, and apportionment, fiscal 1997

Program	Fiscal 1996 apportionment 1/	Fiscal 1996 obligations 2/	Fiscal 1997 apportionment 1/
		Thousand dollars	
Farm ownership (FO)			
Direct	90,359	89,260	28,150
Guaranteed	535,267	535,057	597,696
Operating loans (OL)			
Direct	579,237	566,583	469,817
Guaranteed	1,562,358	1,315,848	1,949,888
Emergency disaster (EM)	192,735	176,500	116,094

1/ Budgetary appropriations setting limits on the volume of new loans that can be issued during the fiscal year. Some funding is transferable between programs and is also adjusted to supportable levels. 2/ Actual amount of lending authority committed to new loans or loan guarantees.

Source: Farm Service Agency.

Delinquencies Fall, But Losses Rise

At fiscal 1996 yearend, past due principal and interest payments on direct loans totaled $2.4 billion, or 23 percent of total outstanding loan volume--the lowest level in a decade. Debt restructuring and loan writeoffs accounted for much of the decline. Delinquencies dropped for all programs, but were largest for the emergency programs. However, these programs still account for two-thirds of total delinquencies. Delinquent payments in the guaranteed programs rose slightly during the year, but remain under 2 percent of total guaranteed loan volume.

Net loan writeoffs (principal and delinquent accrued interest payments) on direct loans rose to $1.3 billion, from $1 billion a year earlier. Losses continued to be concentrated in the EE and EM programs. Although direct loan writeoffs might fall in 1997, with $2.4 billion in delinquent payments, losses should remain high. Losses on guaranteed farm loans edged up to $46 million in fiscal 1996, from the $38 million reported in fiscal 1995.

Table 19—Farm Service Agency direct farmer loan program delinquencies, September 30, 1986 to September 30, 1996

Year 1/	Number of active cases 2/			Principal outstanding		
		Delinquent 3/			Delinquent 4/	
	Total	Total	Proportion	Total	Amount	Share of total
	----------*Number*----------		*Percent*	----------*Million dollars*----------		*Percent*
1986	421,651	134,565	31.9	27,575.9	6,276.5	22.8
1987	388,833	127,577	32.8	25,763.7	6,592.0	25.6
1988	376,388	137,958	36.7	25,065.0	8,321.7	33.2
1989	346,442	114,737	33.1	23,281.9	8,005.6	34.4
1990	299,069	80,341	26.9	19,544.2	6,138.8	31.4
1991	280,528	79,204	28.2	17,465.5	5,507.5	31.5
1992	251,892	73,657	29.2	15,536.7	4,804.8	30.9
1993	224,739	56,099	25.0	13,775.5	4,116.2	29.9
1994	208,130	47,723	22.9	12,622.6	3,569.9	28.3
1995	193,963	52,627	27.1	11,518.0	3,198.8	27.8
1996	182,238	42,101	23.1	10,580.2	2,419.6	22.9
1996 by major programs						
Farm ownership	66,938	10,361	15.5	4,269.0	255.7	6.0
Operating loans	53,355	16,325	30.6	2,641.9	565.9	21.4
Emergency-disaster	39,275	9,933	25.3	2,615.8	1,250.5	47.8
Economic emergency 5/	12,900	3,961	30.7	919.4	327.1	35.6

1/ September 30 of year shown to account for the annual cyclical trend in delinquencies. 2/ Duplicated cases because some borrowers have loans under several different programs. Prior to 1988 active cases excluded those borrowers who are in foreclosure, bankruptcy, or liquidation status. Active cases do not include loans made to associations. 3/ Prior to 1988 a case was considered delinquent when a payment was more than $10 and 15 days past due. Beginning in 1988, a case is delinquent if a payment is more than 30 days past due. 4/ Past due principal and interest payments. 5/ Program is no longer being funded.

Source: Farm Service Agency, 616 report, various issues.

Table 20—Farm Service Agency guaranteed farmer loan program delinquencies, September 30, 1986 to September 30, 1996

Year 1/	Number of active cases			Principal outstanding		
		Delinquent			Delinquent 2/	
	Total 3/	Total	Proportion	Total	Amount	Share of total
	--------*Number*--------		*Percent*	--------*Million dollars*--------		*Percent*
1986	NA	NA	NA	1,664.5	31.4	1.9
1987	18,887	1,052	5.6	2,384.0	42.6	1.8
1988	27,519	1,298	4.4	3,177.6	54.1	1.7
1989	30,016	1,580	5.3	3,243.7	60.6	1.9
1990	36,955	1,681	4.6	4,139.8	58.5	1.4
1991	40,169	1,904	4.7	4,526.6	59.3	1.3
1992	42,189	2,376	5.6	4,923.9	102.8	2.1
1993	42,475	2,077	4.9	5,044.8	98.5	2.0
1994	44,129	1,659	3.8	5,417.5	82.3	1.5
1995	46,838	1,821	3.9	5,933.1	91.3	1.5
1996	48,468	2,311	4.8	6,360.3	112.5	1.8
1996 by major program area						
Farm ownership	19,139	703	3.7	2,803.6	32.3	1.2
Operating loans	29,172	1,586	5.4	3,541.1	78.2	2.2

1/ September 30 of year shown. 2/ Amount delinquent includes past payments of principal and accrued interest. 3/ Duplicated cases because some borrowers have loans under several different programs. NA = Not Available.

Source: Farm Service Agency, 4067 Report, various issues.

Farmer Mac Recapitalizes

Despite a new charter and successful stock sales, volume growth remained sluggish in 1996.

With the sale of 1,437,500 shares of Class C Non-Voting Common Stock at $24 per share in December 1996, Farmer Mac boosted its capital well above the required $25 million threshold it needs to meet by February 1998. The Farm Credit System Reform Act of 1996 had imposed new capital standards for the government-sponsored enterprise, which included a requirement that Farmer Mac obtain a minimum level of capital within 2 years. Farmer Mac still faces permanent capital standards, which go into effect in February 1999, and possible higher risk-based standards thereafter.

The December sale was the second stock issue in 1996. On April 10, 1996, Farmer Mac sold 320,000 shares of Class A Voting Common Stock to Zions First National Bank at $8 a share. The $2,560,000 transaction boosted the bank's share of total Voting A stock to the 33 percent maximum. Zions also purchased 500,000 shares of the December Class C stock issue. The bank, which is the largest single Farmer Mac shareholder, also acquired the farm loan making division of Mutual Benefit Life during 1996. Zions Agricultural Finance joined Equitable AgriBusiness as a contract Farmer Mac underwriter and central servicer in January 1997.

In June, the Western Farm Credit Bank (WFCB), sold $120.7 million in farm loans to Farmer Mac. Using its new authority, and bearing the risk of first losses, Farmer Mac issued mortgage-backed securities (MBS) to investors in this amount. After the sale was completed, WFCB severed its business relationship with Farmer Mac and terminated its loan pooling operations in August. Farmer Mac and WFCB entered into litigation over the circumstances of the termination of their business relationship in September 1996 and settled the dispute out of court in January 1997.

Purchasing Program Introduced

The departure of the Western Farm Credit Bank from loan pooling left Farmer Mac with no certified poolers for agricultural mortgages. On July 25, Farmer Mac opened its own "cash window" to purchase loans directly from originators. Farmer Mac was granted the authority to purchase non-USDA guaranteed loans and hold them in portfolio by the 1996 legislation.

Under Farmer Mac's loan purchasing program, qualifying loans can be purchased from any lender meeting Farmer Mac stockholding requirements that has been approved to sell loans to Farmer Mac. By November 1996, Farmer Mac had approved 81 lenders as sellers. Although growing, the number of approved lenders is still small relative to the total number of commercial banks and is smaller than the lender network established by the WFCB.

In January, Farmer Mac was pricing loans for purchase at rates fixed for 5 or 15 years, with amortization of 15 or 25 years, and with annual or semiannual payments. Fixed rates are quoted with yield maintenance requirements, meaning that the borrower can not pay the loan ahead of the scheduled amortization (prepay) without paying a penalty. In addition, a 1-year adjustable rate mortgage (ARM) product was recently made available. Farmer Mac I loan interest rates quoted to lenders with yield maintenance requirements are at spreads of around 200 basis points over comparable term U.S. Treasury obligations.

Purchasing Slow, But Steady

In the first 6 months of cash window purchases, Farmer Mac issued mortgage-backed securities (MBS) of $12.7 million in October, $15.9 million in November, and $17.7 million in January. This $46-million pace of securitization compares with that of the WFCB, which had $121 million in loans securitized in about 9 months of purchasing. Farmer Mac farm mortgage purchasing activity in the coming year will be heavily influenced by such factors as the demand for long-term fixed-rate lending, the liquidity in the rural banking system, and the competitiveness of the Farmer Mac program compared to other funding sources. Measures of liquidity in the banking system continue to show many rural banks are less liquid than in the past and that could spur demand. A fall in long-term interest rates relative to short-term rates would also boost demand for Farmer Mac's principal products.

In addition to new loans purchased through its cash window, growth in total securitization volume could accelerate if lenders swap existing qualified farm loans for Farmer Mac securities. Farmer Mac can also purchase existing portfolios of qualified agricultural real estate loans on a negotiated basis. However, Farmer Mac had not reported any such transactions through the end of 1996. Activity in Farmer Mac's rural housing authority remained dormant in 1996.

Loans Come from Western States

A total of 119 loans, averaging $390,000 in size, were backing the first three cash window MBS issues. Loans were grouped into four loan pools in each of the three MBS issues, based on the length of maturity and frequency of repayment. Therefore, the pools were small in size, averaging just 10 loans and being under $4 million in size. Loan pools are secured with weighted loan-to-value ratios generally in the range of 55 to 60 percent and weighted debt-service-coverage ratios generally greater than 1.50 to 1.

Loans in the pools came heavily from States in the Northern Plains, Mountain, and particularly the Pacific Coast regions. Only a handful of loans has been securitized so far from States

east of the Mississippi River. As expected from the geographic concentration, the commodity enterprises backing the loans reflect the commodity strengths of these regions. Permanent plantings, such as orchards, are the most common enterprise backing these loan pools.

The heavy concentration of loans in the Western States might reflect the regional purchasing network of the WFCB program. Both the WFCB pool and earlier Farmer Mac securitizations were similarly concentrated geographically. As Farmer Mac's lender network expands, a wider dispersion of loans by commodity and region would be expected.

Profits Reported in 1996

Farmer Mac reported its first quarterly profit ever in the second quarter of 1996, which was the quarter the $121 million WFCB pool was securitized. During that quarter, Farmer Mac reported a $913,000 gain on the issuance of MBS, net of expenses. Third-quarter results also showed a profit, resulting from a $384,000 extraordinary gain from the early retirement of $7.6 million of debt. Excluding the gain, Farmer Mac would have reported a loss of $213,000. For the final quarter, Farmer Mac might also report an operating loss resulting from the costs associated with recapitalization and establishing the cash window program.

The recapitalization should improve the profitability prospects for Farmer Mac in 1997. The new capital will boost Farmer Mac's investment income stream and should provide it with the financial resources to establish a more active secondary market. Total capital following the stock sales should be sufficient to meet minimum regulatory capital requirements over the next few years, providing unanticipated events, such as a decline in credit quality, do not occur. At the end of the third quarter of 1996, 3.1 percent of the loan principal backing Farmer Mac I securities was delinquent, compared to less than 2 percent for FCS and commercial bank farm loans. Because Farmer Mac's volume is still small and because much of its loans are large, delinquency rates can fluctuate significantly as the status of just a few loans changes.

Farmer Mac II Growth Continues

The volume of USDA-guaranteed loans sold through the Farmer Mac II market in 1996 totaled $85 million, up from $64 million in 1995. Cumulative loan sales through Farmer Mac II since 1991 totaled $270 million and outstanding volume stood at $211 million at the end of 1996. Purchasing volume is likely to continue to grow as USDA-guaranteed volume grows. USDA-guaranteed farm loan volume now totals over $6 billion, with annual new lending approaching $2 billion. However, Farmer Mac competes with other companies to purchase USDA-guaranteed loans, so the extent of the further growth remains uncertain.

Under Farmer Mac II, Farmer Mac purchases the USDA-guaranteed portion of farm loans, rural business and industry loans, and community development loans. Beginning in March 1995, Farmer Mac began purchasing the guaranteed portions of such loans for retention in its portfolio. Prior to that date, Farmer Mac issued guaranteed securities based on individual or small pools of guaranteed loans.

Rising Farmland Values Help Farm Lenders and Farmers Holding Real Estate-Backed Farm Loans

Farmland value increases in 1996 continued a 10-year trend and helped strengthen the farm sector's balance sheet. Further gains are expected for 1997.

Farmland is the principal asset of the farm sector, currently accounting for over 75 percent of sector assets. Some 52.6 percent of total farm sector debt at the end of 1996 was real estate debt, composed of either mortgages for purchase of farmland or short- or intermediate-term debt secured by farmland. Consequently, the financial security of both farm sector borrowers and their lenders are affected by changes in farm real estate values.

Farm real estate values have increased continuously since 1987, significantly improving the financial position of many farm businesses. The changes in value have varied among farm production regions, however. Regions with substantial increases over the period from the 1986/87 low point to 1996 include the Northeast (85 percent), Corn Belt (75 percent), Lake and Appalachian (59 percent), and Southeast (57 percent). The Southern Plains experienced the smallest increase over this period, due in part to the unique (in some sense, counter-cyclical) pattern that values in that region have exhibited for much of the 1980's and 1990's. Average values in the Southern Plains increased into 1985, while values for most other regions declined beginning in 1981. The Southern Plains' average value then declined between 1985 and 1992, while over most of that period (1987-92), values increased in all other regions.

The January 1, 1996 value of U.S. farm real estate (land and buildings) averaged $890 per acre, after increasing 7 percent during 1995. By comparison, values increased 6.4 percent during both 1993 and 1994. For each of the three years, the rate of increase was greater than the rate of inflation, implying increases in the real value of U.S. farm real estate. With favorable economic conditions, improved returns, and strong domestic and foreign demand for U.S. farm products, indications are that values continued to increase during 1996 at a rate exceeding the rate of inflation. Also, because government payments are now based on historic payment levels rather than current market conditions, many participants received payments for 1996 that were in excess of what they would have received under previous law. Thus, 1996 may have been a unique year for returns to agricultural land, with both relatively strong commodity prices and strong government payments.

The widespread gains in farm real estate values across the country have led to comparisons with the increases during the 1970's and to questions about whether the growth in values that has occurred during the 1990's could lead to a fall of farm real estate values similar to that which occurred in 1981-82. There are similarities between the farm economy in 1996 and that of the early- to late-1970's: both periods are characterized by growing export demand, strong commodity prices, and increasing farmland values. But there are important differences.

First, the late 1970's were a time of rapid---sometimes double-digit---inflation, which is in contrast to a lower level of inflation today. Second, to the extent that current export gains are from freer trade and less government involvement in agriculture, those gains are more likely to be sustainable. U.S. farm exports increased from $54.2 billion in 1995 to $59.8 billion in 1996, an 10-percent increase.

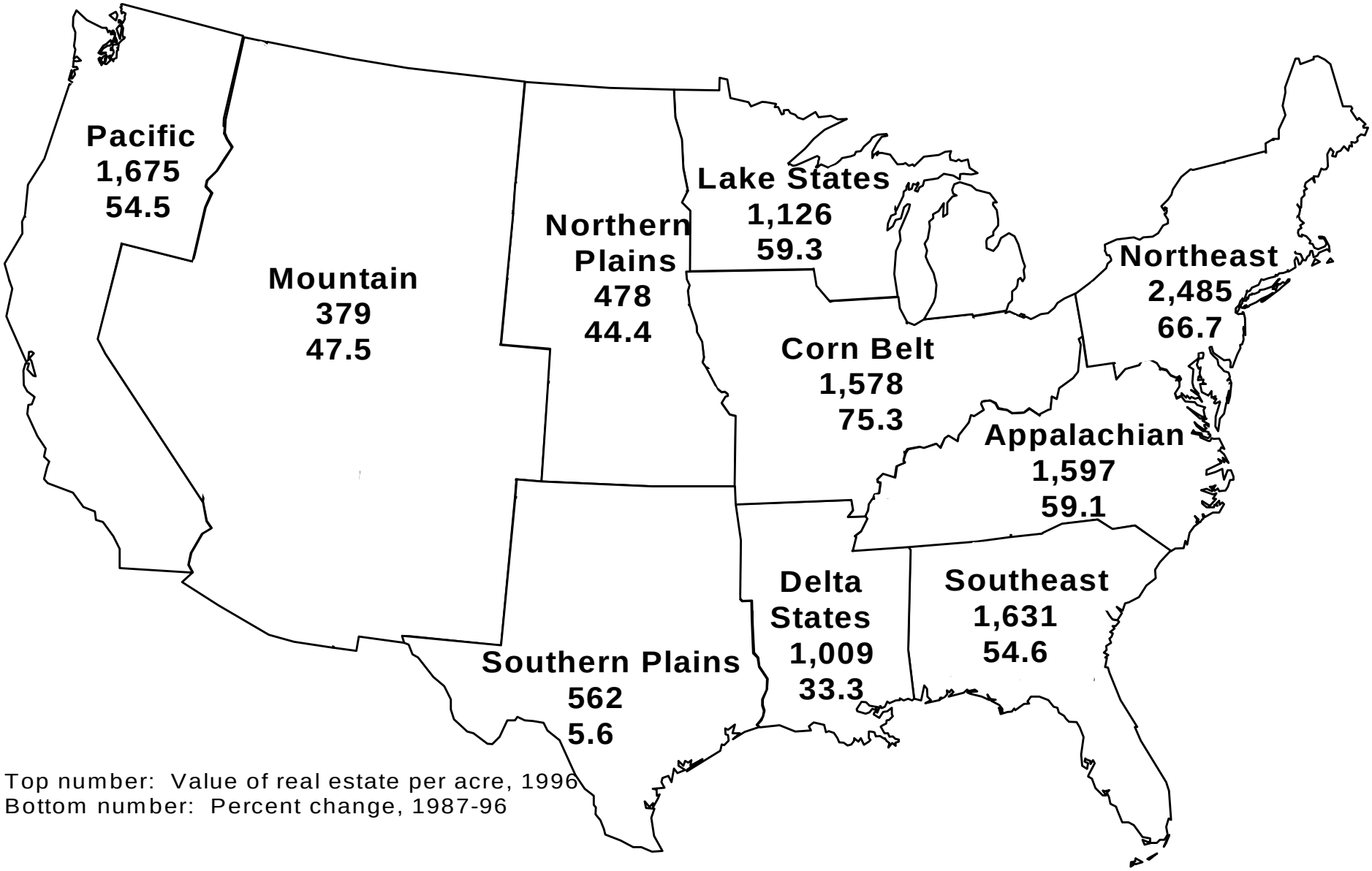
Similarly, economic conditions today are quite unlike those in 1981-82, making it less likely that the unfavorable circumstances leading up to the subsequent fall of farm real estate values will reoccur. Many farm operators are now in much better financial condition. The debt-to-equity ratio of the Nations's farmers has fallen from 27.7 percent in 1986 to 17.7 percent in 1996, and the debt-to-asset ratio has dropped from 21.7 percent to 15 percent. Also, the economy during the early 1980's registered a sharp increase in real interest rates, created by a change in monetary policy designed to control inflation. Today, inflation is low, making dramatic increases in real interest rates less likely.

Table 21—Average per acre value of farm real estate, by farm production region, 1987, 1995, and 1996

Region	1987	1995	1996	Change 1995-96	Change 1987-96
	Dollars			*Percent*	
Northeast	1,491	2,414	2,485	2.9	66.7
Lake	707	1,048	1,126	7.5	59.3
Corn Belt	900	1,448	1,578	9.0	75.3
Northern Plains	331	458	478	4.5	44.4
Appalachian	1,004	1,436	1,597	11.2	59.1
Southeast	1,055	1,533	1,631	6.4	54.6
Delta	757	972	1,009	3.8	33.3
Southern Plains	532	550	562	2.2	5.6
Mountain	257	346	379	9.8	47.5
Pacific	1,084	1,549	1,675	8.2	54.5
U.S.	599	832	890	7.0	48.6

Figure 10

Average per acre value of farm real estate, 1996, and percent change, 1987-96, by farm production region



Top number: Value of real estate per acre, 1996
Bottom number: Percent change, 1987-96

Tax Legislation Improves Farmers' Financial Position and Access to Financing

New tax deductions for health care expenses and capital purchases reduce tax liability. Legislation expands the availability of tax-exempt financing for first-time farmers.

Federal tax legislation enacted in 1996 will improve the financial position of many farmers by reducing the after-tax cost of health insurance and medical expenses and by lowering the cost of investing in farm machinery and other depreciable capital. Banks, insurance companies, and other intermediaries may also act as trustees for newly created medical savings accounts. In addition, changes to provisions governing the use of tax-exempt bonds to provide funding to first-time farmers will expand the availability of such financing.

The Health Reform Act of 1996 gradually increases the deductibility of health insurance premiums for self-employed taxpayers over the next 10 years. Because this deduction is not subject to an income test, unlike itemized medical and dental expenses, it is accessible to a greater proportion of self-employed farmers. This deduction is especially important for farmers who must purchase insurance on their own.

Since 1988 when the self-employed health insurance deduction was introduced, nearly 40 percent of farmers whose primary source of income is from farming and 20 percent of all farmers annually used the self-employed health insurance deduction. Beginning in 1997, self-employed taxpayers will be able to deduct 40 percent of their health insurance premiums (up from 30 percent in 1996). The deduction increases to 45 percent for tax years 1998 through 2002. It increases to 50 percent in 2003, and increases 10 percent per year thereafter until it reaches 80 percent. Therefore, most self-employed individuals eligible for the deduction will be able to more than double the amount they can deduct in health insurance premiums over 1996 levels. Not everyone who currently uses the health insurance deduction will benefit, however. A small fraction of the farmers who used the health insurance deduction also itemized medical expenses and were able to deduct the remainder of their health insurance premiums. These farmers will see an offsetting reduction in their itemized deductions. Nonetheless, more than 350,000 self-employed farmers should be able to deduct an increasing amount of the $1.2 billion they pay for health insurance. As a result, farmers' Federal tax savings from this deduction will increase from approximately $60 million to over $160 million during the next 10 years (in 1996 dollars).

The average health insurance premium for farmers claiming the self-employed health insurance deduction was estimated to be about $3,300 in 1996. For a farmer in the 15-percent Federal income tax bracket (the most common tax bracket for farmers) and a 3-percent State income tax bracket, the self-employed health insurance deduction reduced tax liability by $178, on average. After the changes are fully implemented in 2006, the tax reduction will increase to $475, on average, assuming no real growth in insurance premiums.

The Health Reform Act also establishes medical savings accounts (MSAs) which will be available to all previously uninsured individuals plus an additional 750,000 taxpayers through December 31, 2000. Banks, insurance companies, and certain other intermediaries may act as trustees, and face similar regulations to those for IRAs. An individual's contributions to an MSA will be deductible for both income and social security (self-employment) taxes, and amounts withdrawn for qualified medical expenses will remain tax-free. MSAs, therefore, allow medical expenses to be paid with pre-tax income.

To open an MSA, an individual must purchase a high-deductible medical insurance plan and be self-employed or work in a firm with fewer than 50 employees. High deductible plans are defined as having $1,500-2,500 deductibles for individual coverage, or $3,000-4,000 deductibles for family coverage. Limits are also placed on total annual out-of-pocket expenses. For the self-employed, the maximum annual contribution to an MSA is limited to the smaller of (a) earned income from self-employment and (b) 65 percent of the health insurance deductible for individual coverage or 75 percent of the deductible for family coverage.

Balances in MSAs earn interest on a tax-free basis and withdrawals remain tax-exempt if they are used to pay for qualified medical expenses. Qualified medical expenses are defined by the rules identifying itemized medical expenses, but may not include regular health insurance premiums. Withdrawals from MSAs may also be used to pay for non-qualified expenses, but are subject to regular income and self-employment taxes in the year of withdrawal plus a 15-percent tax penalty. The penalty is waived, however, if the individual is age 65 or over, becomes disabled, or dies.

If actual medical expenses are low and a balance remains in the MSA, several opportunities exist. First, the balance may be sufficient for much of the following year's expected medical expenses, and only negligible additional contributions may be needed. Second, regular contributions may continue, increasing the balance in the account to cover more of the deductible or copayments. Finally, contributions may continue over a period of years and any balance not used for medical purposes may be withdrawn during retirement.

In short, MSAs may be a valuable tool allowing certain taxpayers to partially self-insure their medical expenses with pre-tax income. They may also provide additional flexibility to build a secondary retirement account, not unlike an IRA. For many farmers who already have relatively high deductible plans, an MSA used for qualified medical expenses can substantially reduce income tax liability and the effective cost of medical care. For example, a qualified farmer who

purchases a family plan with a $4,000 deductible may contribute up to $3,000 per year into an MSA. If used for qualified medical expenses, the MSA results in $958 in tax savings (given a 15-percent Federal income tax, 3-percent State income tax, and self-employment taxes). As figure 11 illustrates, the combined tax savings from an MSA and the larger self-employed health insurance deduction will increase, on average, from less than $200 in 1996 to more than $1,400 by 2006.

The Small Business Job Protection Act of 1996 provides additional tax relief to farmers through accelerated recovery of capital investment costs. The cost of investment in farm machinery, equipment, and similar depreciable property must normally be depreciated over a 7-year period. However, farmers and other small businesses have been allowed to immediately deduct up to $17,500 of investment in such depreciable property each year. The ability to expense investment in depreciable property is phased out for businesses that invest over $200,000 in a year. The Act increases the amount of property that can be currently expensed from $17,500 to $25,000 by 2003. The ability to expense up to $25,000 will reduce the cost of depreciable capital and the recordkeeping requirements necessary for determining depreciation deductions for capital investments. As a result of this increase, over 60 percent of total farm investment in depreciable capital can be expensed. Most farmers will be able to expense the full amount of their investment in farm machinery, equipment, and other depreciable capital each year.

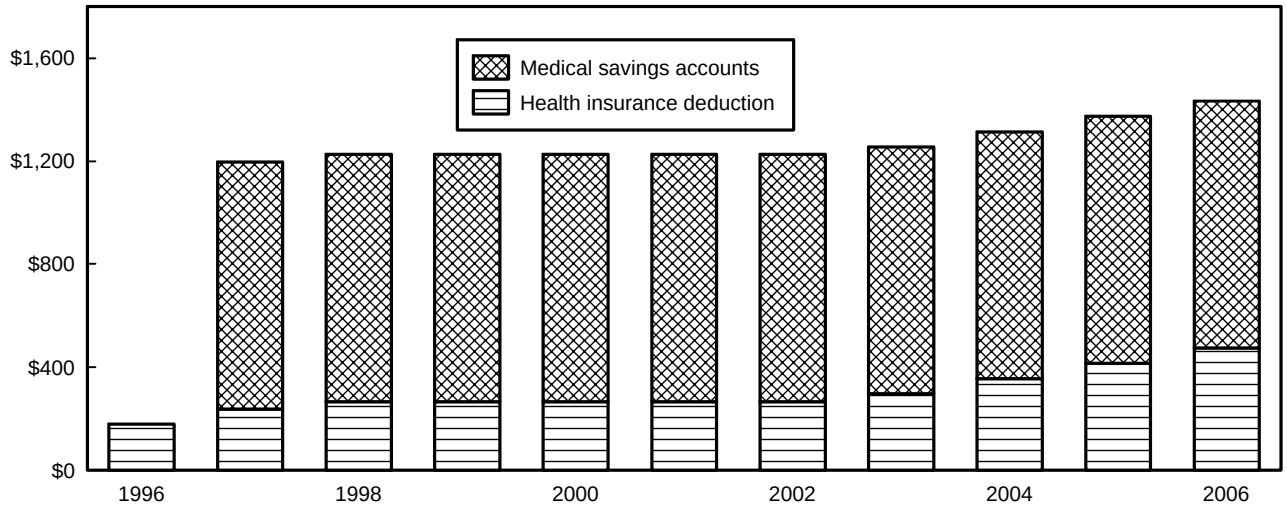
Tax-Exempt Financing for First-Time Farmers Expanded

First-time farmer bonds, tax-exempt small-issue private activity bonds on which the interest income is exempt from Federal income tax, are a popular source of funding for State-level programs aimed at providing initial long-term financing to qualified beginning farmers. State and local governments may issue tax-exempt bonds to finance loans to first-time farmers for the purchase of farmland and limited amounts of depreciable property. The amount of financing provided may not exceed $250,000 per farmer, of which no more than $62,500 can be used to purchase used farm machinery, equipment, or similar depreciable property. For this purpose, a first-time farmer is defined as an individual who has never owned farmland in excess of 15 percent of the median-sized farm in the county in which the land is located or land that exceeded $125,000 in value.

The Small Business Job Protection Act of 1996 expands the availability of first-time farmer bonds by increasing the amount of land that an individual could ever have owned and still be considered a first-time farmer from 15 percent to 30 percent of the median-sized farm in the county. The $125,000 limit remains unchanged. The Act also permits purchases from family members to qualify for this financing as long as the land is purchased at fair market value and the selling family member does not retain an interest in the farming operation. Previously, purchases from family members did not qualify. These changes will make it easier for individuals who want to enter farming, especially by purchasing an ongoing family operation, to use tax-exempt financing as the source of funds.

Figure 11

Potential individual tax savings from the Health Reform Act of 1996



Demand for Farm Credit Expands in 1996

Farm debt expanded 3.1 percent in 1996. The dollar volume of farm loans outstanding expanded for all lender categories, except the Farm Service Agency.

Demand for Credit Increases for Both Production and Real Estate Loans

Agricultural lenders generally found the demand for agricultural credit strengthened across the board in 1996. Total, real estate, and nonreal estate outstanding loan volume increased just over 3 percent. On a calendar year basis, outstanding loan volume increased last year for all lenders except the Farm Service Agency (FSA).

The demand outlook for 1997 indicates that lender competition will remain keen for high-quality farm loans. Trends in the general economy should maintain stable interest rates, which will tend to sustain farm loan demand. But for some farmers, stable or even lower interest rates may not be sufficient to offset the joint effects of rising debt and lower net cash income.

Nonreal estate loan volume increased $2.3 billion in 1996. Some 47.7 percent of the total dollar volume growth occurred in the short- to intermediate-term nonreal estate loan portfolio, down from about 60 percent in 1995. Outstanding nonreal estate loan volume of the FCS increased $1.3 billion, or 10.1 percent, compared with the $157 million, or 0.4 percent, for commercial banks. Despite sizable increases in the FSA's loan authority in fiscal 1996, total FSA loans outstanding are forecast to decrease 7.9 percent in calendar 1996 to $9.3 billion.

FSA made direct operating loans during fiscal 1996 of $566.6 million, up 32.7 percent from fiscal 1995. Total direct FSA obligations (operating, ownership, and emergency) increased 47.7 percent from fiscal 1995, to $832.3 million. Total FSA farm business loans outstanding are forecast to have decreased 7.9 percent in calendar 1996 to $9.3 billion.

Nonreal estate business loans outstanding should increase 3-4 percent in 1997. Farmers are expected to spend about $183 billion for agricultural inputs and $161.5 billion in cash expenses in 1997. Fuel and seed prices will be up from 1996. Under current commodity programs, total planted acreage of major crops in 1997 will be down because of changes in market incentives at planting time. Total planted area for the eight major crops (wheat, rice, corn, sorghum, barley, oats, soybeans, and cotton) are expected to decrease about 5 million acres in 1997.

USDA reported in January that the area seeded to winter wheat in the fall of 1996 totaled 48.2 million acres, down 7 percent from a year earlier. Total wheat acreage may decrease about 5 million acres. The final forecasts of other crops will be issued by USDA on March 31.

Unit sales of farm tractors, combines, and other farm machinery were strong in 1996. Purchases of farm tractors totaled 67,201 units during 1996 compared with 64,700 during 1995, up 3.9 percent. Combine purchases were down 1.9 percent to 9,029 and may have been influenced in large part by adverse weather in the Southern Plains wheat area. Tractor sales are forecast to be up again in 1997, but by a smaller margin and overall demand for machinery is anticipated to be steady to higher.

Strong machinery sales help maintain the demand for short- and intermediate-term farm loans. A larger share of this demand is now met by "captive" finance companies owned by the machinery companies as opposed to the more traditional institutional lenders. This debt appears in the "individuals and others" category in ERS' farm nonreal estate debt data series.

Real estate farm loan volume increased $2.5 billion in 1996. Outstanding FCS real estate loans accounted for $1.3 billion or 51.9 percent of the increase; commercial banks gained $1 billion or 41.4 percent of the total. FCS long-term real estate loans increased 4.1 percent during the year ending September 30, 1996, reflecting increased demand following a period of decline or stagnation for its mortgage credit. Among life insurance companies, total lending activity was up 0.8 percent during calendar 1996.

Farm real estate loans outstanding should increase 2-3 percent in 1997. Activity in the land market should create stable demand for mortgage loans (real estate credit) in 1997. Per acre U.S. farmland values increased 7 percent in 1995, rose an estimated 6 percent in 1996, and are expected to advance 5.5 percent in 1997. This will make 11 straight years of U.S. farmland value increases.

But, nationally, during the years since the 1987 low, the rate of increase lagged the rate of inflation through 1991. During 1992-1996, however, U.S. nominal per acre farmland values have increased 24.8 percent compared to the 9.9-percent increase in the GDP deflator. Moreover, the 1992-96 increases represent the strongest yearly gains, in terms of both nominal and real terms, since the recovery began in 1987. It is unclear. however, that the value increases have led to corresponding increases in the demand for farm mortgage credit. There are reports that a significant portion of the price gains were driven by outside nonfarm investors and not by farmers. Moreover, there are reports that a good share of the farmer buyers were larger operators who were able to pay in large part or in whole with cash and not via borrowing.

Farm Lenders Provide Adequate Credit Supply

All farm lender categories are able to furnish adequate credit access and credit funds.

Farm Lenders Respond to Growth in Credit Demand

Farm lenders have responded to the increased demand for loans that began in 1993. During 1993-96 total farm debt grew $13.5 billion or 9.5 percent. Commercial banks led with $6.7 billion, followed by the individuals and others category with $5 billion and the FCS with $4.4 billion. The increased demand for farm loans during 1993-96 has affected the nonreal estate farm production loan category much more than the real estate mortgage loan category--the former rose 11.9 percent; the latter increased 7.5 percent. Total farm business debt is forecast to reach almost $160 billion by yearend 1997, the highest since 1985. The debt expansion is expected to be about $4 billion in 1997 and follows a projected increase in 1996 of almost $5 billion.

The FCS is well positioned to supply farmers' future credit needs. It has demonstrated financial strength in recent years as it underwent massive restructuring of its organization and procedures. The FCS has access to the national money markets and can help provide the needed farm credit at competitive rates. In 1997 FCS farm business debt is forecast to increase about 5.5 percent following a rise of almost 7 percent in 1996. FCS gained farm loan market share the past 2 years after a gradual loss of share the previous 12 years. FCS mortgage debt is expected to rise over 5 percent in 1996, the first significant gain since 1984, and FCS nonreal estate loans are forecast to rise over 8 percent in 1997.

The recent growth in farm loan demand experienced by commercial banks is reflected in their loan-to-deposit ratios. Average loan-to-deposit ratios grew to 67.4 percent for agricultural banks in the year ending September 30, 1996, from 59.7 percent 3 years earlier. Average loan-to-deposit ratios reported by the Federal Reserve System for agricultural banks increased during the year ending September 30, 1996, for five of the eight reporting Federal Reserve districts. The changes from September 1992 to September 1996 show significant increases for the following districts: Minneapolis (61.1 to 71.6), Kansas City (53.9 to 66.2), Chicago (59.7 to 69), St. Louis (60.8 to 69.9), and Dallas (45.5 to 51) The Minneapolis and Kansas City ratios are the highest in 15 years and the Chicago ratio is the highest since the late 1970s.

The growing demand for farm loans and increasing farm loan-to-deposit ratios at agricultural banks would appear to have taken much of the slack out of the lending system regarding farm loans. But this has not generally been the case. High loan-to-deposit ratios do not necessarily constrain the origination of new loans. Commercial banks have many nondeposit sources of funds, and profitable, well-managed banks often have very high loan-to-deposit ratios.

Although rural banks make considerably less use of nondeposit funds than do banks headquartered in metropolitan areas, evidence shows that most rural banking markets are served by banks that do use nonlocal sources of funds to some extent. Overall adequate funds are available from banks for agricultural loans, with few banks reporting a shortage of loanable funds.

The availability of direct FSA loans to family-sized farmers unable to obtain credit elsewhere continues to fall as the agency emphasizes guaranteed loans. FSA began to emphasize guaranteed in favor of direct government loans in the early 1980s. FSA held only 6 percent of all farm business debt in 1996, down from 16.3 percent in 1987, and its current $9.3-billion loan portfolio should continue to decline for the foreseeable future.

FSA's authority to guarantee loans made by commercial and cooperative lenders will be up 6.8 percent in fiscal 1997. Loan guarantees totaling $1.85 billion were issued in fiscal 1996, down 4.5 percent from fiscal 1995. FSA loan demand in 1997 is difficult to predict because it depends in part on the extent of adverse weather as well as economic conditions that affect the farm sector.

Among life insurance companies, total farm lending activity was up 0.8 percent in 1996. The industry reports the most active year since the farm financial crisis of the early to mid-1980s with approximately $1.8 billion being closed in farm mortgage loans during the year. Life insurance companies report adequate funds for the deals that meet their quality standards. Their farm lending is forecast to increase about 2 percent in 1997.

Creditworthy farmers should have access to loans in 1997, mostly from commercial banks and the FCS, the largest suppliers. Banks' loan-to-deposit ratios, despite some recent increases, reflect liquidity to meet increased credit needs. The FCS is offering farm customers competitive interest rates and credit arrangements in an effort to enhance loan quality and expand market share. Total life insurance company lending is expected to grow slightly in 1997. Lending by individuals and others will increase about 5 percent. Farmers will need to demonstrate adequate cash flow, and some marginal farm operators and beginning farmers will continue to face credit access problems.

Agricultural and Agriculture-Related Lending by the Small Business Administration

by Jerome M. Stam and George B. Wallace[1]

The Small Business Administration (SBA) has made agricultural and agriculture-related loans since soon after its founding in 1953, although agriculture is a very small part of its focus. During 1954-96, SBA made 115,327 direct and guaranteed agricultural and agriculture-related loans totaling $7.7 billion with an average loan size of $67,042. These included loans made for (1) crop and livestock production and for (2) agricultural services. The loans were for business uses, with disaster relief composing about three-fifths of the dollar volume. In 1986, SBA stopped making disaster business loans to farm enterprises for crop or livestock production purposes. At the end of fiscal 1996, $1.3 billion in SBA agricultural and agriculture-related service direct and guaranteed loans were outstanding.

Introduction

This article examines the agricultural and agriculture-related lending authority and activities of the Small Business Administration and makes comparisons with the activities of USDA's Farm Service Agency (FSA). Although the SBA has a long record of agricultural production and agriculture-related services lending, not a great deal is known about its agricultural loan activities. The impetus for this work stemmed from a Congressionally mandated rural credit study under Title VI, Subtitle D, Section 650 of the Federal Agriculture Improvement and Reform Act of 1996 (the 1996 farm legislation) approved by Congress in late March and signed by President Clinton on April 4, 1996 (Public Law 104-127; United States Code 7201 et seq.). The legislation called on the Secretary of Agriculture to report to the Senate and House Agriculture Committees "...on the demand for and availability of credit in rural areas for agriculture, housing, and rural development." The SBA loan data and some of the information reported in this article were provided to ERS under the auspices of the mandated study.

SBA Agricultural and Agriculture-Related Lending Programs

The SBA was established in 1953 as an independent agency of the Federal government to administer a set of Federal programs and policies focused on small businesses unable to obtain credit from the private sector. The agency operates 84 field offices, 900 small business development centers, and more than 400 Service Corps of Retired Executives (SCORE) offices. SBA provides guaranteed, direct, and immediate participation loans to small businesses to help them finance plant construction, conversion, or expansion and the acquisition of equipment, facilities, machinery, supplies, and materials. It also provides working capital. Since enactment of Public Law 94-305 on June 4, 1976 (90 Stat. 663), farming enterprises are included within the term "small business concerns," but some agricultural loans were made each year beginning in 1954.

SBA defines an eligible small business as one that is independently owned and operated and not dominant in its field of operation. The definition of a small business varies from industry to industry to adequately reflect industry differences. SBA has developed standards that define the maximum size of an eligible small business. For agriculture the maximum size ranges from $500,000 to $9 million in average annual sales over the 3 previous years depending on the type of agricultural firm (based on the Standard Industrial Classification [SIC] code). (All of the crop and livestock maximum loan sizes range between $500,000 and $1.5 million except for the $9-million limit for chicken egg production.)

Agricultural Business Loans. Most SBA agricultural business loans are made under the auspices of its Section 7(a) guaranteed loan program. SBA's general business guaranteed loan program relies on private lenders to identify prospective candidates and originate loans covered in part by SBA's guarantee. The guarantee makes it possible for banks to lend to businesses that would not otherwise qualify for loans. But because loans are only partially guaranteed, banks have an incentive to screen out risky loan applications. Several program characteristics must be taken into account when evaluating how well the program reflects small-business credit markets generally.

SBA guarantees loans to both new and existing businesses. SBA encourages longer-term small business financing, with maturities based on the applicant's ability to repay, the loan purpose, and the useful life of the assets being financed. Maximum loan maturities are 25 years for real estate and equipment, and 7 years (up to 10 years to ensure repayment) for working capital.

The borrower and lender negotiate loan interest rates, but rates are subject to SBA maximums that are pegged to the prime rate. Interest rates may be fixed or variable. Rates on loans over $50,000 must not exceed the prime rate plus 2.25 percent for maturities under 7 years, and prime plus 2.75 percent for maturities of 7 years or more. For loans between $25,000 and

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$50,000, the maximum spreads over prime increase to 3.25 percent and 3.75 percent, respectively, and reach 4.25 percent and 4.75 percent for loans below $25,000. Variable rate loans carry the same maximum spreads but the resulting rate can change over time.

SBA funds part of its program by charging borrowers a one-time guarantee fee when the loan is approved. This fee is 2 percent of the first $80,000 guaranteed, and increases in several steps to 3.875 percent of guaranteed amounts greater than $500,000. Loans are also subject to a 50 basis-point annualized servicing fee, which is applied to the outstanding balance of the portion guaranteed by SBA.

SBA usually guarantees 80 percent of loans in amounts below $100,000 and 75 percent of loans above $100,000. Higher average guarantee ratios have applied in the past. The maximum amount guaranteed generally cannot exceed $750,000, which means given a 75-percent loan guarantee, under current rules the total loan is limited to $1 million.

Agricultural Disaster Loans. SBA's Disaster Loans are federally subsidized direct loans. They are the primary form of Federal assistance for nonfarm, private sector disaster losses to assist victims of floods, riots, or other sudden catastrophes pursuant to Section 7(b) of the Small Business Act. Direct subsidized loans are also made to assist nonfarm small businesses and small agricultural cooperatives without credit elsewhere that have sustained substantial economic injury resulting from natural disasters.

SBA provides disaster loans in counties declared as disaster areas by the President (the same areas served by the Federal Emergency Management Agency) or the administrator of SBA at the request of State governors. In short, under certain criteria SBA can make: (1) Physical Disaster Loans for (a) *homes* or (b) *nonfarm businesses*; and (2) Economic Injury Disaster Loans for *nonfarm businesses*.

SBA Physical Disaster loans can be used to repair, rehabilitate, or replace property physically damaged or destroyed in a declared disaster area. SBA can only make Physical Disaster *farm* loans for damage to the farm *home* (for farm crop and livestock production businesses--SIC Major Groups 01 and 02). These loans for the *home* can be made to cover damage to or loss of both a farmer's home, household, or personal effects and are the only SBA disaster loan category that affects assets used directly in the farm business.

In addition, SBA can make direct federally subsidized disaster loans to small agri-dependent businesses and small agriculture-related cooperatives (SIC Major Group 07) who do not have credit available elsewhere and who are located in disaster areas designated by the Secretary of Agriculture. These economic injury loans are limited working capital loans to help keep the business operating until it can recover from the effect of the disaster. In the USDA Secretarial-designated disaster areas, such loans are limited to small businesses that are adversely affected by crop or livestock losses and the resultant loss of farm income, such as farm implement dealers, seed and feed dealers, and contract harvesters. Only small businesses that are not primarily agricultural enterprises are eligible. *The data analysis that follows in this article includes only information on disaster business loans and excludes disaster home loans.*

Through time, SBA emphasis in the disaster loan area vis-a-vis agriculture has varied. For example, Public Law 94-305 enacted on June 4, 1976, enabled SBA to make more loans available to farmers under its Physical Disaster Loan Program and this occurred beginning in mid-1977. This resulted from revised interpretations in June 1977 where production crop loss due to drought or other weather variance was qualified as physical property damage. But this was reversed by statute in 1986 (P.L. 99-272, Sec. 18006, Apr. 7, 1986), so today SBA makes disaster loans only for (1) *farm homes* or (2) *agriculture-related service industry homes* or *business enterprises*. Farm disaster agricultural production-purpose loans are barred.

FSA Farmer Loan Programs Compared

Farm lending by the FSA is probably the most familiar of the government loan programs in rural areas. The FSA operates nearly 3,300 offices and administers USDA's commodity income and price support programs, farm credit programs, and Federal crop insurance programs. FSA provides farm loans to producers unable to obtain credit elsewhere at reasonable rates and terms. FSA loans serve as the Federal government's primary credit safety net for agricultural producers. Also, to qualify for loans, an applicant must demonstrate sufficient farm training or farm experience and be, or will become, an operator of a family-sized (or smaller) farm. Many provisions of the 1996 farm legislation are designed to better ensure the programs serve as temporary and supervised sources of credit and that the programs better serve beginning farmers and ranchers.

FSA provides credit assistance to farmers through two mechanisms: loan guarantees and direct loans. Direct loans are made and serviced directly by FSA staff, often at subsidized interest rates and concessionaire terms and collateral requirements. FSA also guarantees certain types of loans made and serviced by qualified commercial or cooperative lenders. Interest rates on guaranteed loans can be subsidized by FSA.

Under a guaranteed loan, FSA guarantees repayment of up to 90 percent of a loan made by a qualifying lender if the borrower defaults. A 95-percent guarantee is available for the refinancing of direct loan program indebtedness. FSA's guarantee is transferable and so many guaranteed loans are sold through formal and informal secondary markets. Commercial banks are the major source of guaranteed loans, accounting for over three-quarters of the volume. Relative to its overall market share of total farm debt, the Farm Credit System is a relatively minor user of the guarantee program.

FSA offers three groups of loan programs: farm ownership (FO), operating loans (OL), and emergency disaster (EM) loans. FO direct and guaranteed loans are available for the purchase or improvement of farm real estate and guaranteed loans also are available to help owner-operators restructure their debts using real estate equities. Loans are capped at $200,000 for a direct loan and $300,000 for a guaranteed loan. OL loans are available for a variety of purposes, including the

purchase of livestock and farm equipment, annual operating expenses, the refinancing of existing indebtedness, and essential family living expenses. The loan limit is $200,000 for a direct loan and $400,000 for a guaranteed loan.

Emergency loans are made directly by FSA. EM loans are available to producers in designated areas where property damage or severe production losses have occurred due to a natural disaster, such as a flood or drought. Loans are made for the actual losses arising from the natural disaster for amounts up to a maximum of $500,000 per applicant. EM loans may be made to repair, restore, or replace damaged farm property and to compensate for loss of income based on reduced production of crops or livestock resulting from the disaster. For EM loan requests over $100,000, the applicant must provide the FSA with written confirmation from two commercial lenders that the requested credit could not be obtained.

The size of farm loan programs was curtailed in the 1980s, with annual obligations falling from $8.1 billion in fiscal 1981 to $2.2 billion in fiscal 1989. Total obligations have ranged between $2.1 and $2.7 billion in the 1990s and were $2.68 billion in fiscal 1996. Some 37,000 loans were made in fiscal 1996. Total FSA farm loan funding for fiscal 1997 is $3.2 billion. Demand for direct OL and FO and guaranteed FO loans usually is near or exceeds annual authority. The guaranteed OL program historically has had ample lending authority and most of the unobligated lending resources at yearend are located in this program. Demand for emergency loans is subject to annual variations in weather conditions.

Outstanding direct loan volume is $11 billion and guaranteed volume is $6 billion. FSA has approximately 117,000 active direct loan program borrowers and 39,000 active guaranteed loan program borrowers. FSA's share of total outstanding farm debt continues to shrink due to stable annual lending authorities and principal write-offs. Direct and guaranteed loan volume share of total farm debt is about 10 percent, down from a 17-percent peak in the 1980s.

Under guaranteed loans, rates are negotiated between the lender and the borrower, but are not to exceed the average rate the lender offers to its farm customers. This requirement and the government assumption of risk provide borrowers with more favorable rates than otherwise might be obtainable. FSA can provide interest rate subsidies of up to 4 percentage points on guaranteed loans. In fiscal 1996, 14 percent of guaranteed loan volume was made at subsidized rates.

SBA/FSA Working Relationships

Both the SBA and FSA are government lenders with some similarities but with very different emphases. FSA has a major focus on lending to the agricultural sector while the SBA's agricultural lending comprises only a small subset of its activities. There is some overlap of authority and the two agencies have developed memoranda of understandings (MOU's) at various times to delineate responsibilities to agricultural and other rural customers.

Historically, SBA treated agricultural businesses and farmers as eligible and the same as any other applicant except as provided under the following rules. SBA loan offices should be generally familiar with the FSA's (formerly the Farmers Home Administration's--FmHA's) loan programs and eligibility requirements. Potential applicants that meet FSA eligibility requirements should, at the time of the initial interview, be encouraged to contact the appropriate FSA county office for assistance, especially if the applicant has or presently is borrowing through FSA. However, neither SBA nor FSA will refuse to consider a loan request from an eligible applicant who chooses to file with either agency, and applicants are not to be referred back and forth between FSA and SBA. Applicants who are clearly ineligible for FSA assistance are not to be referred to FSA.

Applicants should not apply to two Federal agencies to borrow funds for the same purpose. Therefore, if either FSA or SBA can make the entire loan, the applicant should not be referred to the other agency for part of the funds needed. Applicants who are denied FSA assistance for any reason, including lack of FSA funding, may contact SBA for assistance. However, applicants turned down by FSA for credit reasons are rarely creditworthy for SBA's loan program.

SBA Agricultural Loan Data

The SBA data include loans classified under the four-digit code of the Standard Industrial Classification (SIC) codes of the Office of Management and Budget. The SIC code is the classification standard underlying all industry-based Federal economic statistics. The SBA agricultural loans include those made for SIC Major Group 01--crop production (cash grains, field crops except cash grains, vegetables and melons, fruits and tree nuts, horticultural specialties, and general crop farms), SIC Major Group 02--livestock production (livestock except dairy and poultry, dairy, poultry and eggs, animal specialties, and general animal farms), and SIC Major Group 07--agricultural services (soil preparation, crop, veterinary, animal services except veterinary, farm labor and management, and landscape and horticultural).

The relative importance of business loans to agricultural services in the total SBA agricultural business loan mix has varied considerably over time. In fiscal 1996, 61.1 percent of the agricultural business loan dollar volume went for agriculture-related business services as opposed to agricultural production. Ten years earlier, the services share was 38.8 percent, but in fiscal 1976 it was 95.4 percent.

SBA Agricultural and Agriculture-Related Lending

SBA agricultural and agriculture-related business and disaster business loans approved during 1954-96 are shown in table A-1. The data demolish two misconceptions concerning SBA agricultural lending. First, the idea that SBA lending to the agricultural sector only began in the mid- to late 1970s is not true. SBA agricultural and agriculture-related lending began, although not at a high level, soon after the agency was established in 1953. Second, the concept that SBA agricultural loans are almost all disaster business loans is not true. Disaster business loans comprised 60.6 percent of the dollar value of all SBA agricultural loans approved during 1954-96, but were relatively unimportant for significant periods. During 1954-59, only 22.3 percent of the loans (in dollar terms) were disaster business loans; for 1960-69 it was

18.1 percent. The ratio jumped to 81.8 percent during 1970-79 and 71.5 percent in 1980-89, but fell to 5.3 percent in 1990-96.

During 1954-96, the SBA made 115,327 agricultural loans totaling $7,731.8 million with an average loan size of $67,042. Some 94,843 loans were for disaster business purposes (82.2 percent of the total) and the balance of 20,484 were for business purposes. But the disaster business loans were much smaller. The average disaster business loan was $49,385 and the average business loan was $148,798, making the disaster business loans only a third the size of the business loans.

The total amount of SBA agricultural and agriculture-related lending activity has varied greatly through time (table A-2). Some 79.8 percent of the loans and 61.4 percent of the dollar volume occurred during 1978-81. This period accounts for 93.1 percent of all of the agricultural disaster business loans (and 91.9 percent of loan dollar volume) that have been made during 1954-96. During 1978-81, 96 percent of loans and 90.7 percent of dollar volume went for disaster business loans. The rapid expansion in SBA agricultural and agriculture-related lending starting in fiscal 1978-81 and beyond caused SBA agricultural loans outstanding to increase to a 1980s' high of $3.2 billion in 1982.

It is revealing to compare SBA agricultural and agriculture-related loan sizes with those of other agricultural lenders. SBA business agricultural and agriculture-related loans averaged $214,628 per loan during 1990-96 with the largest average being $253,364 in 1993. Disaster business agriculture-related loans averaged $67,042 for 1990-96 and peaked at $91,590 in 1991. For fiscal 1996, guaranteed FSA farm ownership loans averaged $170,945 and operating loans averaged $114,971 for an overall average of $126,992. The FSA guaranteed farm credit loans on the books as of June 27, 1996, had an average size of $97,338. (SBA agricultural loans are larger than FSA's as expected given SBA's authority to make larger loans.) Federal Reserve Board estimates indicate an average commercial bank nonreal estate farm loan for 1995 of $33,800. FCS Farm Credit Banks had an average loan size of $76,698 on June 30, 1996.

SBA agricultural and agriculture-related total (direct and guaranteed) loan volume has varied a considerable amount through the years with the peak of 48,579 loans valued at $2 billion in 1978. Data for fiscal 1996 show 1,550 loans worth $261,014,189. FSA made 14,575 guaranteed farm loans in fiscal 1996 valued at $1.85 billion (11,445 operating loans worth $1.31 billion and the balance ownership loans). In 1995 commercial banks made an estimated 2.49 million nonreal estate loans valued at $84.1 billion to farmers (the bank loans include SBA and FSA guaranteed loans).

Total direct and guaranteed SBA agricultural and agriculture-related business and disaster business loans outstanding at the end of fiscal 1996 were $1.3 billion with 21.4 percent of this total being disaster loans (table A-3). Total direct and guaranteed dollar loan volume outstanding grew 40.5 percent during fiscal 1992-96, spurred by a 141.3-percent growth in the value of the business loan portfolio outstanding. Disaster business dollar loan volume outstanding declined 44.6 percent during this period. The SBA total of $1.3 billion for fiscal 1996 compares with the total farm business debt of $155.5 billion at yearend 1996.

Conclusions

SBA has been a lender to the agricultural and agriculture-related sectors since shortly after its formation in 1953 and currently holds or has guaranteed a $1.3-billion loan portfolio in this area. Total farm business debt was $155.5 billion at the end of calendar 1996. But the evidence shows that SBA is a niche lender to agriculture and agriculture-related services. Both the SBA and FSA are government lenders, but with very different emphases. FSA has a major focus on lending to the agricultural sector while SBA's agricultural lending comprises only a small subset of its activities. The SBA during 1954-96 made 115,327 agricultural and agriculture-related services loans totaling $7.7 billion with an average loan size of $67,042.

Disaster business loans comprised about three-fifths of the dollar value of all SBA agricultural and agriculture-related loans approved during 1954-96, but were relatively unimportant for significant periods. SBA agricultural and agriculture-related lending activity has varied considerably through the years. Some 93.1 percent of all the agricultural and agriculture-related disaster business loan numbers and 91.9 percent of the dollar volume made during 1954-96 were approved during 1978-81.

In terms of loan numbers for 1954-96, 82.2 percent of the agricultural and agriculture-related loans were for disaster business purposes, but the disaster business loans were relatively small. The average disaster business loan was $49,385 and the average business loan was $148,798. SBA agricultural business loans averaged $214,628 in size during 1990-96; disaster business loans averaged $66,737. For fiscal 1996, guaranteed FSA farm ownership loans averaged $170,945 and operating loans averaged $114,971 for an overall average of $126,992. SBA agricultural loans thus are larger than FSA's, which is consistent with SBA's authority to make somewhat larger loans.

Table A-1—Small Business Administration agricultural and agriculture-related business and disaster business loans approved, 1954-96 1/

Fiscal year	Business loans			Disaster business loans		
	Loans	Total amount	Average loan size	Loans	Total amount	Average loan size
	Number	*Dollars*		*Number*	*Dollars*	
1954	11	524,805	47,710	5	126,470	25,294
1955	19	937,500	49,342	1	4,150	4,150
1956	31	1,206,500	38,919	35	566,540	16,187
1957	75	3,166,548	42,221	15	463,400	30,893
1958	117	4,105,269	35,088	132	2,880,408	21,821
1959	144	7,006,368	48,655	36	824,670	22,908
1960	59	2,959,500	50,161	7	60,600	8,657
1961	77	3,537,786	45,945	15	303,400	20,227
1962	88	3,494,450	39,710	16	185,290	11,581
1963	93	4,423,192	47,561	10	93,300	9,330
1964	84	4,064,269	48,384	6	305,850	50,975
1965	170	5,947,703	34,986	38	721,250	18,980
1966	122	5,213,505	42,734	46	1,896,140	41,220
1967	150	6,838,150	45,588	12	876,500	73,042
1968	207	11,346,420	54,814	274	7,142,800	26,069
1969	195	12,474,673	63,973	46	1,725,480	37,510
1970	227	12,481,135	54,983	27	826,330	30,605
1971	285	15,487,016	54,340	94	2,723,950	32,428
1972	407	31,490,606	77,372	13	637,226	49,017
1973	605	48,577,816	80,294	9	642,300	71,367
1974	473	34,902,838	73,790	3	298,500	99,500
1975	388	25,448,398	65,589	11	933,700	84,882
1976	528	44,842,018	84,928	71	6,279,000	88,437
1977	1,402	151,299,165	107,917	861	45,820,883	53,218
1978	1,370	164,940,232	120,394	47,209	1,847,662,789	39,138
1979	925	100,766,170	108,936	16,059	917,038,919	57,104
1980	739	89,826,902	121,552	6,867	442,540,974	64,445
1981	640	85,535,218	133,649	18,198	1,096,423,859	60,250
1982	334	40,965,939	122,653	438	33,906,530	77,412
1983	493	79,463,878	161,184	136	14,271,600	104,938
1984	463	73,144,834	157,980	1,048	61,270,200	58,464
1985	339	49,106,037	144,856	554	46,765,500	83,873
1986	314	51,744,580	164,792	1,014	47,906,100	47,245
1987	406	68,009,499	167,511	47	3,047,600	64,843
1988	365	67,925,928	186,098	9	387,500	43,056
1989	480	90,935,085	189,406	92	3,573,600	38,843
1990	537	104,185,496	194,014	157	7,531,200	47,969
1991	585	117,795,067	201,359	106	9,708,500	91,590
1992	895	202,835,441	226,632	126	9,775,400	77,583
1993	1,102	279,207,521	253,364	393	29,023,400	73,851
1994	1,403	350,460,671	249,794	247	15,937,800	64,526
1995	1,781	338,838,325	190,252	166	10,222,700	61,583
1996	1,356	250,515,089	184,746	194	10,499,100	54,119

1/ Includes both direct and guaranteed loans made under the Standard Industrial Classification crop production, livestock production, and agricultural services categories.

Source: Small Business Administration.

Table A-2—Small Business Administration total agricultural and agriculture-related business and disaster business loans approved, 1954-96 1/

Fiscal year	Total agricultural and agriculture-related loans		
	Loans	Total amount	Average loan size
	Number	*Dollars*	
1954	16	651,275	40,705
1955	20	941,650	47,083
1956	66	1,773,040	26,864
1957	90	3,629,948	40,333
1958	249	6,985,677	28,055
1959	180	7,831,038	43,506
1960	66	3,020,100	45,759
1961	92	3,841,186	41,752
1962	104	3,679,740	35,382
1963	103	4,516,492	43,849
1964	90	4,370,119	48,557
1965	208	6,668,953	32,062
1966	168	7,109,645	42,319
1967	162	7,714,650	47,621
1968	481	18,489,220	38,439
1969	241	14,200,153	58,922
1970	254	13,307,465	52,392
1971	379	18,210,966	49,352
1972	420	32,127,832	76,495
1973	614	49,220,116	80,163
1974	476	35,201,338	73,952
1975	399	26,382,098	66,121
1976	599	51,121,018	85,344
1977	2,263	197,120,048	87,106
1978	48,579	2,012,603,021	41,429
1979	16,984	1,017,805,089	59,927
1980	7,606	532,367,876	69,993
1981	18,838	1,181,959,077	62,743
1982	772	74,872,469	96,985
1983	629	93,735,478	149,023
1984	1,511	134,415,034	88,958
1985	893	95,871,537	107,359
1986	1,328	99,650,680	75,038
1987	453	71,057,099	156,859
1988	374	68,313,428	182,656
1989	572	94,508,685	165,225
1990	694	111,716,696	160,975
1991	691	127,503,567	184,520
1992	1,021	212,610,841	208,238
1993	1,495	308,230,921	206,175
1994	1,650	366,368,471	222,041
1995	1,947	349,061,025	179,281
1996	1,550	261,014,189	168,396

1/ Includes both direct and guaranteed loans made under the Standard Industrial Classification crop production, livestock production, and agricultural services categories.

Source: Small Business Administration.

Table A-3—Small Business Administration agricultural and agriculture-related business and disaster business loans outstanding, 1992-96

Fiscal year ending Sept. 30	Business loans 1/		Disaster business loans 2/		Total loans	
	Loans	Total amount	Loans	Total amount	Loans	Total amount
	Number	*Dollars*	*Number*	*Dollars*	*Number*	*Dollars*
1992	2.946	422,998,417	12,188	500,951,198	15,134	923,949,615
1993	3,440	559,966,595	9,985	433,216,214	13,425	993,182,809
1994	4,089	736,389,454	8,468	366,840,771	12,557	1,103,230,225
1995	5,196	932,825,366	7,375	315,017,952	12,571	1,247,843,318
1996	5,749	1,020,500,339	6,248	277,744,905	11,997	1,298,245,244

1/ Includes both direct and guaranteed loans made under the Standard Industrial Classification (SIC) code crop production, livestock production, and agricultural services categories. 2/ Includes Physical Disaster Loans for agriculture-related service businesses. Disaster loans to cover damages or losses to farm real estate or personal property such as crops, livestock or equipment, or loss of income from the farming operation (which are covered by USDA's Farm Service Agency's programs) have been prohibited since 1986.

Source: Small Business Administration.

The Farm Service Agency's Limited Resource Interest Rate Program in the 1990s

by Charles B. Dodson and Steven R. Koenig[2]

The Farm Service Agency (FSA) provides subsidized "limited resource" interest rates to borrowers unable to afford regular program rates in its direct operating and farm ownership programs. Analysis of borrowers paying limited resource rates and those paying regular program rates in the 1990s reveals that the financial condition of the two groups is becoming more similar. Charging limited resource rate borrowers regular rates would likely have little effect on the ability of many of these borrowers to repay debt.

The Farm Service Agency provides direct and guaranteed farm ownership (FO) and operating (OL) loans to farmers unable to obtain commercial credit. In the late 1970s rising interest rates heightened Congressional concerns over the ability of financially stressed farmers to continue farming. Consequently, Congress enacted the Agricultural Credit Act 1978 (P.L. 95-334), which authorized USDA to make direct FO and OL loans at either limited resource or regular program interest rates (see box). Regular program rates are set near the cost of government borrowing, while limited resource rates are set below the cost of government borrowing. Limited resource rates have been at their statutory minimum of 5 percent since April 1986 for FO loans and since December 1990 for OL loans.

Subsidized interest rates are not limited to FSA's direct loan programs. Farm legislation in 1985 expanded FSA's guaranteed lending authority and introduced an interest rate subsidy program for guaranteed loans. The guaranteed interest rate assistance program provided up to a 4-percentage-point reduction in interest rates paid by the borrower for 3 years, with FSA and the lender sharing the cost equally. Farm legislation in 1990 removed the 3-year limit and the matching requirement of the lender. In the low interest rate environment since 1992, the 4-point reduction has often meant that subsidized guaranteed loan rates are less than subsidized direct loan rates.

Direct limited resource rates and guaranteed interest rate assistance rates were introduced to provide temporary relief to financially stressed farms who could not service debt at high interest rates. However, agriculture and lending conditions have changed considerably in recent years. Market interest rates are now low, often reducing the difference between subsidized and regular direct program rates. Also, fewer farms are experiencing financial stress following a surge in farm asset values and greater farm income. In the 1990s, subsidized rates have been increasingly targeted toward beginning farmers as part of a policy to provide assistance to new entrants.

Because of the farm sector's improved financial health and a greatly reduced level of FSA direct lending in the 1990s, farm operators are much less reliant on FSA as a primary credit source. Consequently, credit enhancements tied to FSA direct loans are less likely to have an impact on borrower income. This research evaluates the effectiveness of the limited resource rates in today's lending and interest rate environment. An analysis of interest rate subsidies on other loan programs is left for future research. Financial and structural characteristics of FSA borrowers with direct OL and FO loans at limited resource and regular program rates are compared to determine if limited resource rates are directed to less creditworthy FSA borrowers.

Limited Resource Rate Volume Is Large

Whether measured by volume or numbers of borrowers served, the limited resource rates are used extensively. Of the $2.7 billion in direct OL obligations and the $330 million in direct FO obligations incurred in fiscal 1991-95, 41 percent of the OL obligations and 65 percent of the total FO obligations were made at limited resource rates. Initially, limited resource rates were used sparingly in the early 1980s in the OL and FO programs despite the fact that interest rates were at a peak and the spreads between limited resource and regular rates were high (figure B-1 and figure B-2). During this period funding for the Emergency Disaster (EM) loan program was very high and that program offered subsidized interest rates that were often less than limited resource rates (figure B-3). Therefore, the EM program was frequently used as a substitute for other direct lending programs, particularly the direct OL program. Total direct obligation volume made at subsidized rates as a percentage of all direct loan obligation volume was at its highest in fiscal 1981, at 82 percent.

As the farm financial problems of the 1980s mounted, FSA began using limited resource rates as a primary loan servicing tool to boost loan repayment ability and keep farmers in business. Also, EM funding was sharply cut and program eligibility tightened, making it less of a substitute source of credit. During this period, two-thirds to three-quarters of total direct OL and FO loan volume was made at limited resource rates.

With improving farm financial conditions and lower interest rates, the use of limited resource rates declined in the 1990s.

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FSA Direct Programs and Rates

Direct Farm Ownership and Operating Loan Programs. Farmers and ranchers who are or will be operators of a family-sized-farm or smaller and who are unable to get credit elsewhere are eligible for FSA's direct loan program. Farm ownership (FO) loans can be used to acquire, enlarge, or improve a farm or ranch. The operating loan (OL) program provides short-to-intermediate-term production or chattel loans. Loans under each program are capped at $200,000. After 1996 legislation, the refinancing of existing indebtedness as a qualifying purpose was curtailed, program funding was directed to beginning farmers, stricter time limits on borrower eligibility were imposed, and the authority to finance loans for nonfarm purposes, such as rural business enterprises, was eliminated.

Limited Resource Rates. Beginning in 1990, limited resource rates have been set at half the rate on U.S. Treasury notes having maturities of 5 years, but not below 5 percent. This means limited resource rate subsidy costs rise in unison with an increase in 5-year Treasury notes up to 10 percent. As the 5-year rate rises above 10 percent, each 1- percentage point increase raises the limited resource rate by one-half point. Eligibility for the limited resource rate is reviewed annually.

The limited resource rate has been calculated differently in the past. From 1978 to 1981, the rates were set by USDA, but could not exceed 5 percent for FO loans. From 1981 to 1990, FO rates were set at half the regular program rate, but not less than 5 percent, and OL limited resource rates were set at 3 percentage points below the regular program rate.

Regular Program Rates. Beginning in 1978 regular rates have been set at the current average market yield on outstanding U.S. Treasury obligations having maturities comparable to the average maturities of program loans. The rate on 5-year Treasury notes is used for OL loans and the rate on 25-year Treasury bonds is used for FO loans. FSA can add up to 1 percentage point to this average and may adjust its rates to the nearest one-eight of a percentage point on a monthly basis. In practice, rates do not change if they stay in a range that is plus or minus 50 basis points from the current posted rate. The rate at the time the loan was taken out remains in effect until maturity.

FSA loans made at the regular program rate are substantially lower than a borrower could obtain from commercial lenders, hence, providing a subsidy. This is because the cost of funds to the Federal government is below rates on loans from commercial lenders. Recently, FSA regular loan rates have been around 1 to 2 percentage points below comparable average commercial rates. A comparison of averages likely understates the level of subsidy, because direct FSA loans are more risky, on average, than farm loans made by commercial lenders. The riskier FSA direct loans would be charged a higher than average rate by commercial lenders, if they were made at all.

Other FSA Program Interest Rates. Direct emergency loans help farmers recover from actual production or physical losses inflicted by natural disasters in counties designated as disaster areas. Rates on loans for actual losses are set by statute at 3.75 percent for farmers unable to get credit elsewhere. Rates on commercial loans guaranteed under FSA's guaranteed FO and OL loan programs are negotiated between the borrower and the lender. FSA can subsidize the rates on OL loans at 4 percentage points, depending on the borrower cash flow need. Eligibility for the subsidy is reviewed annually. Qualifying beginning farmer applicants (less than 10 years of farm experience) can obtain loans to purchase farmland at interest rates set by statute at 4 percent. FSA can make loans at nonprogram interest rates to borrowers ineligible for a loan program. Most of these loans are to facilitate the sale of inventory farmland and the rate charged is an average of local private sector rates for similar maturities.

In fiscal 1991, loans at the limited resource rate still accounted for the majority of total obligation volume as the spread between limited resource and regular rates for OL loans was still 300 to 400 basis points. But the gap narrowed thereafter, and by early 1994 the gap between limited resource and regular program rates was as little as 25 basis points. OL obligations made at the limited resource rate fell to the statutory minimum of 25 percent of total OL loan obligations in fiscal 1994.

When the two rates are similar, the borrower's ability to repay debt is not greatly affected if the regular program rate is used. Therefore, when limited resource and regular program rates are about the same, it is often in the borrower's best interest to take the regular program rate, which is fixed for the life of the loan. Limited resource rates are annual rates, and borrowers are subject to an annual review for eligibility. If eligibility is denied in a future review, the rate paid by the borrower can be increased up to the current regular rate, which would likely be higher than the very low regular rates experienced in 1994. For example, the regular OL rate is currently 6.5 percent compared to early 1994 when the rate was only 5.25 percent.

Despite recent declines in the amount of annual obligations loaned at the limited resource rate, half of the $2.6 billion in outstanding direct OL volume and 46 percent of the $4.3 billion in outstanding direct FO volume at the end of fiscal 1996 were still at the limited resource rate. However, because outstanding loans at the limited resource rate are larger in size than regular rate loans, only 43 percent and 32 percent of outstanding OL and FO borrower cases were at the limited resource rate. There is substantial regional variation in the percentage of total direct borrowers at the limited resource

rates, perhaps reflecting differences in farm financial strength, natural disaster occurrences, and program administration.

Characteristics of Limited Resource and Regular Rate Borrowers

Using USDA's Farm Cost and Returns Survey (FCRS) data for 1991, 1992, 1993 and 1995, the characteristics of FSA borrowers are examined (for technical information on the FCRS, see Morehart, Johnson, and Banker). For each farm loan, survey respondents provided information on their lender, principal balance, current interest rate, term, origination year, and purpose (real estate, nonreal estate, or production). These data were not collected for 1994. Using FCRS and FSA interest rate data, it was possible to identify operators with loans made at limited resource and regular program rates.

Farms that did not have an direct OL or FO loan but had FSA loans under other credit programs, such as emergency loans (EM) and guaranteed loans, were excluded from the analysis. The analysis only examines farms with either FO or OL loans made from 1985 to 1995. Farms which only had FSA loans originated before 1985 were not considered because of difficulty in segregating EM loans from limited resource loans. Excluding loans made before 1985 should have little impact on the study's results because most of the FSA limited resource loans currently outstanding were originated after 1985.

Some Differences Apparent for 1991-93

Means of some selected financial variables are presented for groups of FSA borrowers paying the limited resource rate and those paying the regular program rate. An initial analysis indicated a similarity in the characteristics of FSA regular program and limited resource borrowers using data collected for 1991, 1992, and 1993. Consequently, the 1991-93 data were combined using proper complex survey design procedures to simplify the presentation of results and improve statistical reliability (see Dubman, 1997). Statistically significant differences between limited resource and regular program groups were mostly confined to 1991-93. The average farm balance sheet and income statement for limited resource and regular program rate borrowers indicates limited resource borrowers owed significantly greater amounts of noncurrent liabilities, received more income from livestock sales, and were more reliant on the farm business for their total household income (table B-1).

On average, limited resource borrowers paid 250-300 basis points less on FSA loans than regular program borrowers during 1991-93 (table B-2). But because they had greater indebtedness, the limited resource group incurred a somewhat greater total interest expense. Compared to regular program borrowers, limited resource borrowers were found to be less solvent with a debt-to-asset ratio of 0.41 compared to 0.29 for the regular program group. More limited resource borrowers were highly leveraged with debt-asset ratios of 0.75 or more. Also, limited resource borrowers owed more to FSA and were more likely to have multiple FSA loans. Limited resource borrowers owned more acres but had less investment in real estate. Also, a greater proportion of their real estate was leveraged.

Somewhat more FSA borrowers receiving the limited resource rate had limited equity capital with 40 percent reporting less than $150,000 in farm net worth. In comparison, the farm net worth for the average commercial-sized farm ($50,000 or more in annual sales) was about $500,000 for the same period. Limited resource borrowers probably have less off-farm employment prospects, with fewer having education beyond high school. Also, limited resource rate borrowers were more likely to be family farms with 90 percent reporting that the farm business supported only one family.

Groups Appear Similar in 1995.

In contrast to 1991-93, data for 1995 show fewer statistically significant differences between borrowers using the limited resource and regular program rates. There was no difference between regular program and limited resource borrowers with respect to balance sheet items such as assets owned, debt owed, and gross and net farm incomes (table B-1). The contrast between the two periods may be partially due to the larger sample size obtained by combining individual the 1991-93 data. Normally, this would reduce standard errors and result in more variables being significantly different between limited resouce and regular program borrowers. But in this analysis, most of the variables that were significant during 1991-93 were still significant when these years were not combined. This was especially true for some of the debt and solvency variables which displayed significant differences between the limited resource and regular program groups for 1991, 1992 and 1993 (table B-2).

Only four variables were found to be significantly different at the 10 percent level in 1995--multiple households, percent of land cash rented, average FSA interest rate, and percent of farms with over $250,000 of farm production (table B-2). Limited resource borrowers were again mostly single-family operations, with 97 percent reporting that the farm supported only one family.

For 1995, no significant differences were found between the groups with respect to farm size, operator age, farm profitability, distribution of net worth, investment in real estate, acres owned, number of FSA loans, or off-farm income. Most variable means were remarkably close, with t-statistics approaching 0.

When compared to operators receiving commercial credit, both the regular program and limited resource groups were more financially stressed and had less income. In 1995, over 20 percent were financially vulnerable and more than 10 percent were highly leveraged with debt-asset ratios over 0.75. For both 1991-93 and 1995, a large percentage reported less than $15,000 in total annual household income. Most reported less than $250,000 in farm net worth. Most operators supplied 2,000 hours of annual labor, or more, to the farm. Hence, off-farm income possibilities are probably limited. Thus, both groups would likely have difficulty obtaining all of their credit from commercial lenders.

The Difference Between 1995 and the Early 1990s

Analysis of 1991-93 data provides some evidence that limited resource rates were being used by a group of less creditworthy FSA borrowers. In contrast, analysis of 1995 data indicates

that limited resource borrowers were not significantly less creditworthy than regular program borrowers. For 1991-93, two-thirds of the outstanding debt was originated before 1990 while for 1995 less than half of the loans were originated before 1990. Therefore, the differences between the 1991-93 and 1995 data likely reflect some of the differences in the quality of loans in the 1990s versus the late 1980s. Compared to the 1990s, the 1980s represented a period of higher interest rates, greater farm financial stress, and greater direct lending by FSA.

The relatively small difference between regular program and limited resource rates in 1993-94 represents a likely explanation for the greater similarities between the two groups in 1995. During this period many limited resource eligible borrowers changed to regular rates and, hence, made the two populations more similar. When rate differences are low, the ability to service debt is not significantly improved by the lower limited resource rate. Thus, between the 1991-93 period and 1995 many limited resource borrowers may have moved to regular program rates. Another possible explanation is that the most financially stressed FSA borrowers left farming and the more financially sound graduated to private lenders, also making FSA portfolio more homogenous. FSA borrowers who were more financially sound may have taken advantage of the lower commercial rates in the 1990s and have graduated to commercial lenders through the guaranteed lending program.

Impact of Limited Resource Rates Less in 1995

With shrinking funds available for direct lending, FSA has become a less important supplier of credit. In 1995, FSA direct loans represented about 55 percent of its borrowers' total credit needs with the remainder, some of which may be guaranteed by FSA, supplied by banks, the Farm Credit System, individuals, merchants, and dealers. Thus, the financial status of FSA borrowers is highly influenced by the actions of other lenders. With an average direct FSA indebtedness of $85,000, the interest rate differential between regular program and limited resource rates would need to be fairly large to have sizable impact on cash flow. On average, a 1-percentage point reduction in interest rates in 1995 would have increased net income by $690 for limited resource borrowers.

For most operations, FSA interest expense is not a large component of total expenses. On average, interest expense on FSA debt for limited resource borrowers represented only 4 percent of total expenses in 1995. Even after eliminating all interest expense on the outstanding FSA debt of limited resource borrowers, one-third would still have had negative incomes in 1995 (table B-3). Thus, for many borrowers lower interest rates alone will only modestly improve their incomes.

There are some limited resource borrowers who would be sensitive to changes in FSA interest rates. Borrowers for whom FSA interest expense represents over 20 percent of total expenses would fall into this category. But in 1995, this category represented less than 15 percent of limited resource borrowers. Borrowers whose household income is near the poverty level are also likely to fall into this category. A large share (46 percent) of limited resource borrowers had household incomes of less than $15,000 per year. But, FSA interest expense has a relatively small influence on household income for most of these operations. With no FSA interest expense, 41 percent would still report household incomes of under $15,000 (table B-3).

Summary

Whatever the explanation, whether it be low market rates of interest, program changes, or improving farm financial health, there is less indication that the limited resource rate programs are currently serving a group of less creditworthy FSA borrowers. The analysis does indicate that the program has served less creditworthy borrowers during periods of higher interest rates and greater financial stress. But, with the relatively small amounts of FSA debt outstanding per farm, interest rate reductions are probably not a significant factor in improving the incomes for many OL and FO borrowers, especially when rates are low.

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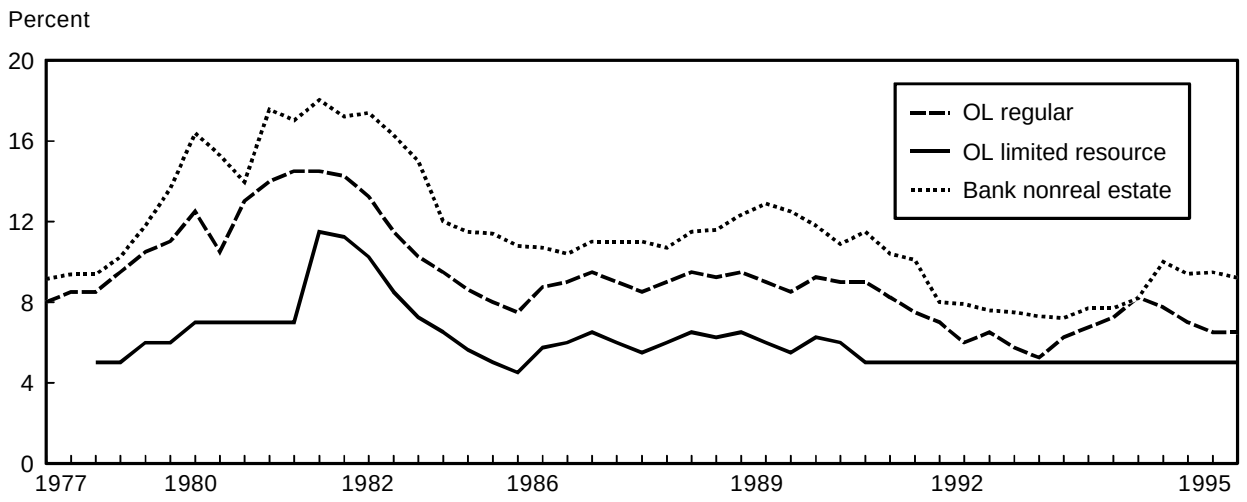
Figure B-1

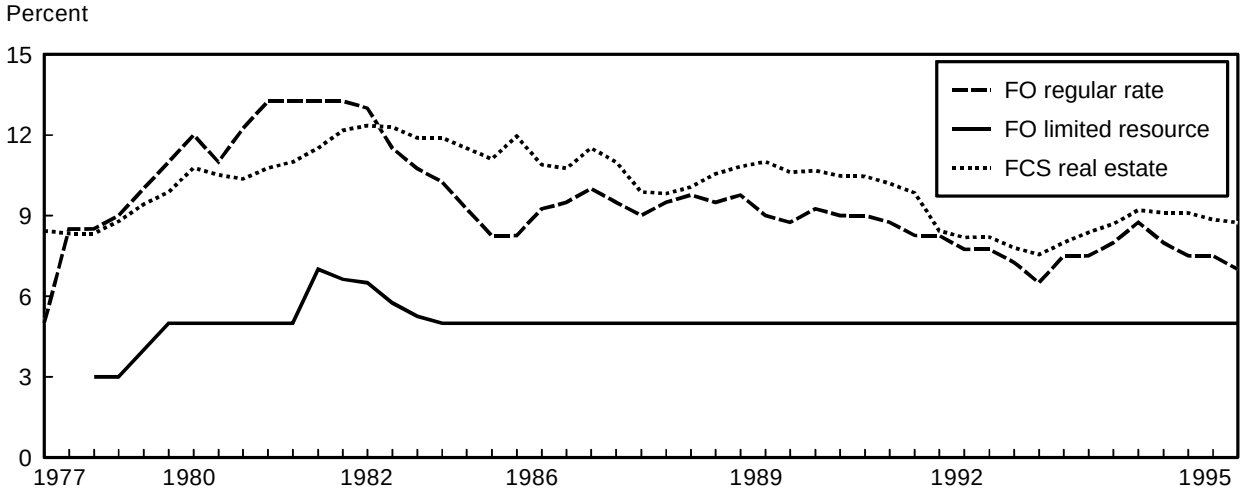
Effective interest rates for FSA direct operating loans and commercial bank nonreal estate farm loans, January 1, 1977 to January 1, 1996



All FSA interest rate changes during the period are recorded. Bank rates are averages of the quarter preceding the FSA rate change.

Figure B-2

Effective interest rates for FSA direct farm ownership loans and Farm Credit System farmland loans, January 1, 1977 to January 1, 1996

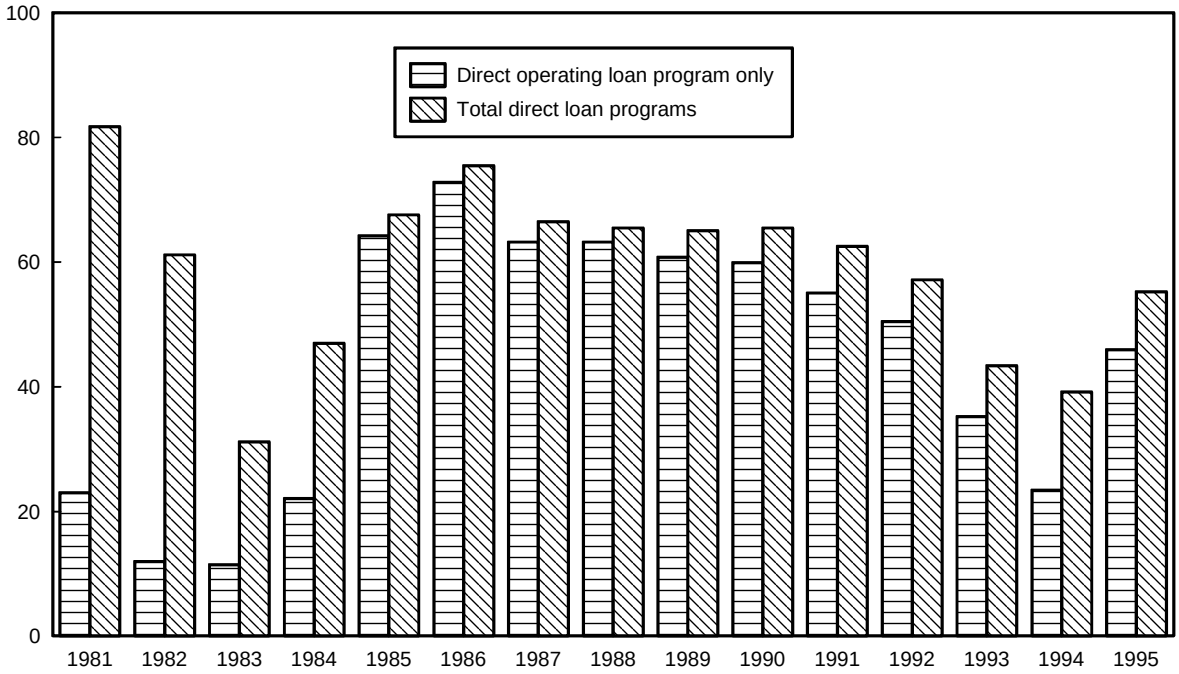


All FSA interest rate changes during the period are recorded. FCS rates are unadjusted for stock ownership and are averages of the quarter preceding the FSA rate change.

Figure B-3

Share of total obligation dollars made at reduced rates 1/

Percent



1/ Reduced rates include limited resource and emergency loan rates, which are set below regular program interest rates.

Table B-1—Farm operation financial statements for FSA limited resource and regular program borrowers having loans originated after 1985, as of 1991-93, and 1995

	1991-93			1995	
	Limited resource	Regular program		Limited resource	Regular program
			Dollars		
Balance sheet:					
Farm assets	467,252	470,538		474,912	460,721
Current assets	64,205	57,623		93,907	85,837
Noncurrent assets	403,046	412,915		381,004	374,884
Land & buildings1/	292,080	310,958		266,487	256,155
Other assets	110,966	110,957		114,517	118,729
Farm liabilities	189,450	136,008	2/	165,230	165,365
Current liabilities	63,089	40,355		50,572	64,919
Noncurrent liabilities	126,361	95,653	2/	114,657	100,445
Nonreal estate	22,258	19,106		32,580	19,753
Real estate	104,103	76,547		82,078	80,693
Farm equity	277,802	334,530		309,682	295,357
Income statement:					
Gross cash income	115,914	99,892		119,364	139,628
Livestock sales	51,607	34,940	2/	36,653	37,690
Crop sales	45,433	45,752		48,373	79,324
Government payments	8,792	9,841		7,020	8,042
Other farm income	10,082	9,359		27,318	14,572
Cash expenses	92,854	87,243		103,951	119,224
Variable	67,295	61,751		73,971	83,340
Fixed	25,559	25,492		29,980	35,884
Interest	13,001	10,823		12,672	13,205
Other fixed cash expense	12,558	14,669		17,308	22,679
Net cash farm income	23,059	12,649		15,413	20,404
Noncash expense	-309	1,598		8,538	6,138
Net farm income	23,368	11,051		6,875	14,266
Household income:					
Farm income to household	11,745	4,127	2/	3/	8,931
Nonfarm income	19,759	22,858		3/	30,614
Total household income	31,505	26,984		25,665	39,545
Sample size	200	198		64	70

1/ Excludes operator dwelling. 2/ Means of groups significantly different at the 10-percent level. 3/ Estimate not statistically reliable.

Table B-2—Selected financial and structural characteristics of FSA limited resource and regular program borrowers originating loans after 1985, as of 1991-93, and 1995

	1991-93				1995		
	Limited resource	Regular program	t-statistic 1/		Limited resource	Regular program	t-statistic
	----------*Percent*----------		*Number*		----------*Percent*--------		*Number*
Debt/assets	41	29	*3.12*	a,b,c	35	36	0.20
Debt/equity	68	41	*2.90*	a.b.c	56	55	0.14
Mortgage debt/land value	39	27	*2.50*	a,b,c	33	34	0.09
Farm category:							
Vulnerable farms 2/	12	8	1.02	b	28	22	0.18
Debt/asset over 75 percent	21	6	*2.95*	b.c	11	18	0.83
Livestock farms	57	40	*1.75*	c	48	44	0.77
Some college education	41	55	*1.66*	b,c	33	40	0.66
Household income							
Under $15,000	23	40	*1.78*	c	46	31	1.32
$15,000 -$25,000	22	10	1.42		11	13	0.39
Over $25,000	52	50	0.20		44	49	0.53
Over 1 household per farm	10	21	1.30		3	14	*1.90*
Net farm income							
Less than $0	22	36	1.20		44	35	0.75
0 - $10,000	25	23	0.22		22	25	0.17
$10,000-$25,000	28	17	1.11		11	10	0.02
Over $25,000	25	24	0.50		23	30	0.19
Value of farm production							
Under $50,000	34	40	0.81		38	37	0.06
$50-$99,999	31	34	0.36		17	8	1.28
$100,000-$249,999	23	16	1.15		60	61	0.01
Over $250,000	13	10	0.53		5	16	*1.83*
Debt outstanding							
Under $50,000	14	30	*1.96*	b,c	14	25	1.06
$50,000-$99,999	13	21	1.22	b	18	18	0.06
Over $100,000	72	49	*2.67*	a,b,c	67	57	0.85
Net worth							
Under $150,000	40	27	1.60	c	57	43	0.90
Under $250,000	64	43	*2.50*	b,c	58	66	0.74
Over $500,000	20	43	*2.70*	a	20	19	0.06
Operator age (years)	48	46	0.50		47	51	1.04
Under 40 years of age (percent)	28	38	0.84		36	29	0.71
Land tenure:							
Acres operated	665	717	0.42		46	996	0.53
Percentage rented from others	46	65	*2.70*	a,b,c	53	42	0.96
Cash rent/total rent(%)	71	66	0.55	a	43	80	*2.75*
FSA loan characteristics:							
Total FSA debt (dollars)	113,470	78,963	*2.70*	a,b	85,219	86,778	0.10
FSA/total debt(percent)	63	61	0.20		54	56	0.17
FSA loans/farm (number)	1.7	1.1	*3.82*	a,b,c	1.0	1.1	0.50
Farm w/1 FSA loan (percent)	61	91	*3.98*	a,b,c	91	81	1.43
FSA int. rate (percent)	5.5	7.9	*9.60*	a,b,c	5.2	8.2	*16.1*
Age of FSA debt (years)	5.0	4.9	0.22		6.3	6.7	0.37
Term to maturity (years)	15.7	17.4	0.86		18.5	18.9	0.13

1/ The t-statistic compares means for limited resource group with regular program group to determine if they are different. A t-statistic of 1.645 or greater implies that the means of the two groups are different at the 10 percent level of significance. Ergo, there is only a one in ten probability that these two means are the same by chance. Significant differences are italicized. 2/ Vulnerable farms had negative income and debt-asset ratios greater than 0.40.

a= significant at 10 percent level in 1991, b= significant at 10 percent level in 1992, c= significant at 10 percent level in 1993.

Table B-3—Effects on changes in FSA interest rates on the income and cash flow of limited resource borrowers for 1995 1/

	Interest rate on FSA debt of							
	0%	2%	4%	5%	6%	7%	8%	10%
Percentage of limited resource farms with:				*Percent*				
Negative net farm income	31	33	41	44	48	49	50	54
Negative net cash income	36	36	44	44	44	48	48	48
Under $15,000 total household income	41	41	46	46	48	48	50	53

1/ On January 1, 1996, interest rates were: 5 percent on limited resource loans, 6.5 percent for regular program OL loans, and 7 percent for regular FO loans.

List of Tables

Appendix table 1—Total farm business debt by lender, December 31, 1979-96

	Debt owed to reporting institutions						
	Farm Credit System	Commercial banks	Farm Service Agency	Life insurance companies	Total	Individuals and others 1/	Total debt
				Million dollars			
1979	45,376	37,125	14,442	11,278	108,222	43,329	151,551
1980	52,974	37,751	17,464	11,998	120,188	46,636	166,824
1981	61,566	38,798	20,802	12,150	133,316	49,065	182,381
1982	64,220	41,890	21,274	11,829	139,214	49,592	188,806
1983	63,710	45,422	21,428	11,668	142,228	48,842	191,070
1984	64,688	47,245	23,262	11,891	147,086	46,701	193,787
1985	56,169	44,470	24,535	11,273	136,447	41,152	177,599
1986	45,909	41,621	24,138	10,377	122,044	34,926	156,970
1987	40,030	41,130	23,553	9,355	114,069	30,342	144,411
1988	37,211	42,742	21,879	9,039	110,873	28,694	139,567
1989	36,440	44,929	19,047	9,113	109,529	28,330	137,859
1990	35,773	47,556	17,014	9,704	110,046	27,916	137,962
1991	35,527	50,271	15,253	9,546	110,598	28,620	139,218
1992	35,753	51,669	13,538	8,765	109,725	29,327	139,052
1993	35,441	54,535	12,077	8,986	111,039	30,930	141,970
1994	35,777	57,809	11,485	9,025	114,096	32,703	146,799
1995	37,324	60,025	10,147	9,092	116,588	34,182	150,769
1996P	39,863	61,206	9,342	9,165	119,576	35,925	155,501
				Percent change in year			
1979	20.8	7.8	63.5	16.3	19.5	17.5	19.0
1980	16.7	1.7	20.9	6.4	11.1	7.6	10.1
1981	16.2	2.8	19.1	1.3	10.9	5.2	9.3
1982	4.3	8.0	2.2	-2.6	4.4	1.1	3.5
1983	-0.8	8.4	0.7	-1.4	2.2	-1.5	1.2
1984	1.5	4.0	8.6	1.9	3.4	-4.4	1.4
1985	-13.2	-5.9	5.5	-5.2	-7.2	-11.9	-8.4
1986	-18.3	-6.4	-1.6	-8.0	-10.6	-15.1	-11.6
1987	-12.8	-1.2	-2.4	-9.8	-6.5	-13.1	-8.0
1988	-7.0	3.9	-7.1	-3.4	-2.8	-5.4	-3.4
1989	-2.1	5.1	-12.9	0.8	-1.2	-1.2	-1.2
1990	-1.8	5.8	-10.7	6.5	0.5	-1.4	0.1
1991	-0.7	5.7	-10.3	-1.6	0.5	2.5	0.9
1992	0.6	2.8	-11.2	-8.2	-0.8	2.5	-0.1
1993	-0.9	5.6	-10.8	2.5	1.2	5.5	2.1
1994	1.0	6.0	-4.9	0.4	2.8	5.7	3.4
1995	4.3	3.8	-11.7	0.7	2.2	4.5	2.7
1996P	6.8	2.0	-7.9	0.8	2.6	5.1	3.1
				Percentage distribution of total debt			
1979	29.9	24.5	9.5	7.4	71.4	28.6	100.0
1980	31.8	22.6	10.5	7.2	72.0	28.0	100.0
1981	33.8	21.3	11.4	6.7	73.1	26.9	100.0
1982	34.0	22.2	11.3	6.3	73.7	26.3	100.0
1983	33.3	23.8	11.2	6.1	74.4	25.6	100.0
1984	33.4	24.4	12.0	6.1	75.9	24.1	100.0
1985	31.6	25.0	13.8	6.3	76.8	23.2	100.0
1986	29.2	26.5	15.4	6.6	77.7	22.3	100.0
1987	27.7	28.5	16.3	6.5	79.0	21.0	100.0
1988	26.7	30.6	15.7	6.5	79.5	20.5	100.0
1989	26.4	32.6	13.8	6.6	79.5	20.5	100.0
1990	25.9	34.5	12.3	7.0	79.8	20.2	100.0
1991	25.5	36.1	11.0	6.9	79.4	20.6	100.0
1992	25.7	37.2	9.7	6.3	78.9	21.1	100.0
1993	25.0	38.4	8.5	6.3	78.2	21.8	100.0
1994	24.4	39.4	7.8	6.2	77.7	22.3	100.0
1995	24.8	39.8	6.7	6.1	77.3	22.7	100.0
1996P	25.6	39.4	6.0	5.9	76.9	23.1	100.0

P = Preliminary. 1/ Includes individuals and others (land for contract, merchants' and dealers' credit, etc.), CCC storage and drying facilities loans, and Farmer Mac loans.

Appendix table 2—Real estate farm business debt by lender, December 31, 1979-96

	Debt owed to reporting institutions							
	Farm Credit System	Farm Service Agency	Life insurance companies	Commercial banks	Total	Individuals and others 1/	CCC storage and drying facilities	Total real estate
				Million dollars				
1979	27,322	6,254	11,278	7,798	52,653	25,660	1,391	79,704
1980	33,225	7,435	11,998	7,765	60,423	27,813	1,456	89,692
1981	40,298	8,096	12,150	7,584	68,128	29,318	1,342	98,788
1982	43,661	8,298	11,829	7,568	71,357	29,326	1,127	101,810
1983	44,318	8,573	11,668	8,347	72,906	29,388	888	103,182
1984	46,596	9,523	11,891	9,626	77,636	28,438	623	106,697
1985	42,169	9,821	11,273	10,732	73,994	25,775	307	100,076
1986	35,593	9,713	10,377	11,942	67,725	22,660	123	90,408
1987	30,646	9,430	9,355	13,541	62,972	19,380	46	82,398
1988	28,445	8,980	9,039	14,434	60,898	16,914	21	77,833
1989	26,896	8,203	9,113	15,685	59,898	16,068	12	75,978
1990	25,924	7,639	9,704	16,288	59,556	15,169	7	74,732
1991	25,305	7,041	9,546	17,417	59,308	15,632	4	74,944
1992	25,408	6,394	8,765	18,757	59,324	16,095	2	75,421
1993	24,902	5,838	8,986	19,596	59,322	16,720	0	76,043
1994	24,597	5,465	9,025	21,079	60,166	17,513	0	77,679
1995	24,851	5,055	9,092	22,277	61,275	18,012	0	79,287
1996P	26,135	4,678	9,165	23,301	63,279	18,481	0	81,760
				Percent change in year				
1979	20.4	67.0	16.3	1.0	20.1	18.2	21.2	19.5
1980	21.6	18.9	6.4	-0.4	14.8	8.4	4.7	12.5
1981	21.3	8.9	1.3	-2.3	12.8	5.4	-7.8	10.1
1982	8.3	2.5	-2.6	-0.2	4.7	0.0	-16.0	3.1
1983	1.5	3.3	-1.4	10.3	2.2	0.2	-21.2	1.3
1984	5.1	11.1	1.9	15.3	6.5	-3.2	-29.8	3.4
1985	-9.5	3.1	-5.2	11.5	-4.7	-9.4	-50.7	-6.2
1986	-15.6	-1.1	-7.9	11.3	-8.5	-12.1	-59.9	-9.7
1987	-13.9	-2.9	-9.8	13.4	-7.0	-14.5	-62.6	-8.9
1988	-7.2	-4.8	-3.4	6.6	-3.3	-12.7	-54.9	-5.5
1989	-5.4	-8.6	0.8	8.7	-1.6	-5.0	-43.9	-2.4
1990	-3.6	-6.9	6.5	3.8	-0.6	-5.6	-43.8	-1.6
1991	-2.4	-7.8	-1.6	6.9	-0.4	3.0	-41.8	0.3
1992	0.4	-9.2	-8.2	7.7	0.0	3.0	-47.6	0.6
1993	-2.0	-8.7	2.5	4.5	0.0	3.9	-100.0	0.8
1994	-1.2	-6.4	0.4	7.6	1.4	4.7	0.0	2.2
1995	1.0	-7.5	0.7	5.7	1.8	2.9	0.0	2.1
1996P	5.2	-7.5	0.8	4.6	3.3	2.6	0.0	3.1
				Percentage distribution of debt				
1979	34.3	7.8	14.2	9.8	66.1	32.2	1.7	100.0
1980	37.0	8.3	13.4	8.7	67.4	31.0	1.6	100.0
1981	40.8	8.2	12.3	7.7	69.0	29.7	1.4	100.0
1982	42.9	8.2	11.6	7.4	70.1	28.8	1.1	100.0
1983	43.0	8.3	11.3	8.1	70.7	28.5	0.9	100.0
1984	43.7	8.9	11.1	9.0	72.8	26.7	0.6	100.0
1985	42.1	9.8	11.3	10.7	73.9	25.8	0.3	100.0
1986	39.4	10.7	11.5	13.2	74.8	25.1	0.1	100.0
1987	37.2	11.4	11.4	16.4	76.4	23.5	0.1	100.0
1988	36.5	11.5	11.6	18.5	78.2	21.7	0.0	100.0
1989	35.4	10.8	12.0	20.6	78.8	21.1	0.0	100.0
1990	34.7	10.2	13.0	21.8	79.6	20.3	0.0	100.0
1991	33.8	9.4	12.7	23.2	79.1	20.9	0.0	100.0
1992	33.7	8.5	11.6	24.9	78.7	21.3	0.0	100.0
1993	32.8	7.7	11.8	25.8	78.0	22.0	0.0	100.0
1994	31.7	7.0	11.6	27.1	77.5	22.5	0.0	100.0
1995	31.3	6.4	11.5	28.1	77.3	22.7	0.0	100.0
1996P	32.0	5.7	11.2	28.5	77.4	22.6	0.0	100.0

P = Preliminary 1/ Including Farmer Mac loans.

Appendix table 3—Nonreal estate farm business debt by lender, December 31, 1979-96

	Debt owed to reporting institutions						
	Commercial banks	Farm Credit System	Farm Service Agency	Total	Individuals and others	Total nonreal estate	CCC crop loans
				Million dollars			
1979	29,327	18,054	8,188	55,569	16,278	71,847	3,714
1980	29,986	19,750	10,029	59,765	17,367	77,132	3,836
1981	31,215	21,268	12,706	65,189	18,404	83,593	6,888
1982	34,322	20,558	12,977	67,857	19,139	86,996	15,204
1983	37,075	19,392	12,855	69,322	18,566	87,888	10,576
1984	37,619	18,092	13,740	69,451	17,640	87,091	8,428
1985	33,738	14,001	14,714	62,453	15,070	77,523	17,598
1986	29,678	10,317	14,425	54,420	12,143	66,563	19,190
1987	27,589	9,384	14,123	51,096	10,916	62,012	15,120
1988	28,309	8,766	12,899	49,974	11,760	61,734	8,902
1989	29,243	9,544	10,843	49,631	12,250	61,881	5,225
1990	31,267	9,848	9,374	50,490	12,740	63,230	4,377
1991	32,854	10,222	8,213	51,289	12,985	64,274	3,579
1992	32,912	10,346	7,143	51,401	13,230	63,631	4,771
1993	34,939	10,540	6,239	51,717	14,210	65,927	3,170
1994	36,730	11,180	6,020	53,930	15,190	69,120	6,237
1995	37,748	12,472	5,092	55,312	16,170	71,482	2,979
1996P	37,905	13,728	4,664	56,297	17,444	73,741	2,000
				Percent change in year			
1979	9.8	21.3	61.0	19.0	16.2	18.4	-20.1
1980	2.2	9.4	22.5	7.6	6.7	7.4	3.3
1981	4.1	7.7	26.7	9.1	6.0	8.4	79.6
1982	10.0	-3.3	2.1	4.1	4.0	4.1	120.7
1983	8.0	-5.7	-0.9	2.2	-3.0	1.0	-30.4
1984	1.5	-6.7	6.9	0.2	-5.0	-0.9	-20.3
1985	-10.3	-22.6	7.1	-10.1	-14.6	-11.0	108.8
1986	-12.0	-26.3	-2.0	-12.9	-19.4	-14.1	9.0
1987	-7.0	-9.0	-2.1	-6.1	-10.1	-6.8	-21.2
1988	2.6	-6.6	-8.7	-2.2	7.7	-0.4	-41.1
1989	3.3	8.9	-15.9	-0.7	4.2	0.2	-41.3
1990	6.9	3.2	-13.5	1.7	4.0	2.2	-16.2
1991	5.1	3.8	-12.4	1.6	1.9	1.7	-18.2
1992	0.2	1.2	-13.0	0.2	1.9	-1.0	33.3
1993	6.2	1.9	-12.7	0.1	7.4	3.6	-33.6
1994	5.1	6.1	-3.5	4.3	6.9	4.8	96.8
1995	2.7	11.6	-15.4	2.6	6.5	3.4	-52.2
1996P	0.4	10.1	-8.4	1.8	7.9	3.2	-32.9
				Percentage distribution of debt			
1979	40.8	25.1	11.4	77.3	22.7	100.0	
1980	38.9	25.6	13.0	77.5	22.5	100.0	
1981	37.3	25.4	15.2	78.0	22.0	100.0	
1982	39.5	23.6	14.9	78.0	22.0	100.0	
1983	42.2	22.1	14.6	78.9	21.1	100.0	
1984	43.2	20.8	15.8	79.7	20.3	100.0	
1985	43.5	18.1	19.0	80.6	19.4	100.0	
1986	44.6	15.5	21.7	81.8	18.2	100.0	
1987	44.5	15.1	22.8	82.4	17.6	100.0	
1988	45.9	14.2	20.9	81.0	19.0	100.0	
1989	47.3	15.4	17.5	80.2	19.8	100.0	
1990	49.5	15.6	14.8	79.8	20.1	100.0	
1991	51.1	15.9	12.8	79.8	20.2	100.0	
1992	51.7	16.3	11.2	79.5	20.8	100.0	
1993	53.0	16.0	9.5	78.4	21.6	100.0	
1994	53.1	16.2	8.7	78.0	22.0	100.0	
1995	52.8	17.5	7.1	77.4	22.6	100.0	
1996P	51.4	18.6	6.3	76.3	23.7	100.0	

P = Preliminary

Appendix table 4—Interest rates on short- and intermediate-term loans, 1960-96

Year	Prime rate	6-month T-Bill 1/	Agricultural nonreal estate: Commercial banks: All banks	Commercial banks: Large banks	Commercial banks: Other banks	Farm Credit System	FSA 2/: Regular	FSA 2/: Limited resource	Average on outstanding debt 3/
					Percent				
1960	4.82	NA	NA	NA	NA	NA	5.00	NA	6.58
1965	4.54	NA	NA	NA	NA	NA	5.00	NA	6.38
1970	7.91	6.87	NA	NA	NA	9.45	6.88	NA	7.84
1975	7.86	6.39	NA	NA	NA	9.11	8.63	NA	8.21
1980	15.27	12.39	15.20	16.70	15.00	12.74	11.00	6.82	11.70
1981	18.87	15.06	18.50	19.80	18.10	14.46	14.04	8.13	13.34
1982	14.86	11.96	16.70	16.10	17.00	14.58	13.73	10.75	13.31
1983	10.79	9.27	13.50	12.10	14.10	11.95	10.31	7.31	12.14
1984	12.04	10.46	14.10	13.10	14.40	12.47	10.25	7.25	11.88
1985	9.93	8.09	12.80	11.20	13.40	12.40	10.25	7.25	10.61
1986	8.33	6.30	11.50	9.60	12.10	11.23	8.66	5.66	10.23
1987	8.21	6.35	10.60	9.20	11.30	10.10	8.12	5.27	10.53
1988	9.32	7.27	11.20	10.20	11.60	10.56	9.02	6.02	10.50
1989	10.88	8.50	12.50	12.10	12.70	11.68	9.10	6.10	10.64
I	10.98	9.09	12.30	12.10	12.40	11.63	9.40	6.40	NA
II	11.36	8.86	12.90	12.80	13.00	12.11	9.50	6.50	NA
III	10.66	8.12	12.50	12.00	12.80	11.55	9.00	6.00	NA
IV	10.50	7.91	12.10	11.60	12.50	11.41	9.42	5.50	NA
1990	10.01	7.87	11.40	10.90	12.30	11.16	8.90	5.82	10.76
I	10.04	8.11	11.80	11.20	12.30	11.20	8.50	5.50	NA
II	10.00	8.19	11.80	11.40	12.30	11.20	9.01	6.01	NA
III	10.00	7.82	10.90	10.20	12.30	11.14	9.08	6.08	NA
IV	10.00	7.36	11.50	11.00	12.20	11.10	9.00	5.67	NA
1991	8.47	5.72	9.80	9.00	11.30	10.10	8.25	5.00	9.86
I	9.19	6.34	10.40	9.60	11.60	10.59	8.50	5.00	NA
II	8.67	5.98	9.80	9.10	11.50	10.25	8.25	5.00	NA
III	8.40	5.74	10.10	9.40	11.50	10.02	8.25	5.00	NA
IV	7.60	4.82	9.00	8.10	10.70	9.59	8.01	5.00	NA
1992	6.25	3.69	7.80	6.80	9.40	8.20	6.79	5.00	8.59
I	6.50	4.16	8.00	6.80	9.70	8.51	7.17	5.00	NA
II	6.50	3.97	8.30	7.20	9.70	8.38	7.00	5.00	NA
III	6.01	3.30	7.80	6.80	9.40	8.09	7.00	5.00	NA
IV	6.00	3.34	7.40	6.30	8.90	7.81	6.00	5.00	NA
1993	6.00	3.23	7.50	6.70	8.70	8.09	5.88	5.00	8.29
I	6.00	3.20	7.60	6.60	8.80	8.35	6.33	5.00	NA
II	6.00	3.19	7.50	6.70	8.90	8.15	6.00	5.00	NA
III	6.00	3.22	7.50	7.00	8.60	8.08	5.75	5.00	NA
IV	6.00	3.32	7.30	6.70	8.60	7.77	5.42	5.00	NA
1994	7.14	4.83	7.70	7.10	8.75	8.23	6.46	5.00	8.91
I	6.02	3.57	7.20	6.50	8.20	7.46	5.25	5.00	NA
II	6.90	4.61	7.70	6.90	8.60	8.06	6.08	5.00	NA
III	7.50	5.11	7.70	7.30	9.00	8.44	7.25	5.00	NA
IV	8.13	6.02	8.20	7.70	9.20	8.96	7.25	5.00	NA
1995	8.83	5.85	9.50	9.10	10.45	8.89	7.38	5.00	9.56
I	8.83	6.39	10.00	9.70	10.40	9.04	8.25	5.00	NA
II	9.00	5.91	9.40	8.90	10.30	8.96	7.92	5.00	NA
iIII	8.77	5.60	9.50	9.00	10.50	8.84	6.83	5.00	NA
IV	8.72	5.49	9.20	8.80	10.60	8.73	6.50	5.00	NA
1996P	8.27	5.28	8.50	7.80	10.10	8.55	6.58	5.00	9.61
I	8.33	5.07	8.50	7.70	10.00	8.16	6.33	5.00	NA
II	8.25	5.35	8.10	7.40	10.10	8.53	6.17	5.00	NA
iIII	8.25	5.43	8.60	8.10	10.20	8.75	6.83	5.00	NA
IV	8.25	5.27	8.70	8.00	9.90	8.76	7.00	5.00	NA

NA = Not Available. P = preliminary for FCS. 1/ Auction average investment yield. 2/ New operating loans. 3/ Average on outstanding farm business debt.

Note: Because of changes in the practices of agricultural lenders over time and differences in the types of loans used to calculate each lender's interest rate series, interest rates across columns and over time are roughly rather than exactly comparable.

Appendix table 5—Interest rates on long-term loans, 1960-96

Year	U.S. Treasury bond 1/	Agricultural real estate						
		Commercial banks	Farm Credit System	Life insurance companies	FSA 2/		Average on outstanding debt 3/	Average on total farm debt 4/
					Regular	Limited resource		
				Percent				
1960	4.02	NA	NA	NA	5.00	NA	5.01	5.79
1965	4.21	NA	NA	NA	5.00	NA	5.36	5.84
1970	6.58	8.27	8.68	9.31	5.00	NA	5.88	6.73
1975	7.00	9.02	8.69	10.03	5.00	NA	6.98	7.55
1980	10.81	13.76	10.39	13.21	11.05	4.82	8.17	9.82
1981	12.87	16.75	11.27	15.42	13.00	5.50	8.91	10.95
1982	12.23	16.63	12.27	15.51	12.94	6.50	9.60	11.31
1983	10.84	13.76	11.63	12.47	10.79	5.27	9.70	10.83
1984	11.99	14.07	11.76	13.49	10.75	5.25	9.41	10.54
1985	10.75	12.96	12.24	12.61	10.75	5.25	8.73	9.57
1986	8.15	11.56	11.61	11.96	9.13	5.06	8.76	9.39
1987	8.64	11.07	11.10	10.21	8.90	5.00	8.94	9.62
1988	8.98	11.42	10.10	10.05	9.46	5.00	9.22	9.78
1989	8.59	12.08	10.93	10.47	9.46	5.00	9.52	10.02
I	9.19	12.36	10.82	10.71	9.50	5.00	NA	NA
II	8.84	12.18	11.01	10.54	9.17	5.00	NA	NA
III	8.25	11.98	10.62	10.23	9.50	5.00	NA	NA
IV	8.07	11.78	10.65	10.40	9.67	5.00	NA	NA
1990	8.73	11.69	10.56	10.25	8.94	5.00	9.58	10.11
I	8.60	11.74	10.62	9.62	8.75	5.00	NA	NA
II	8.81	11.68	10.67	10.10	9.09	5.00	NA	NA
III	8.91	11.72	10.49	10.30	9.08	5.00	NA	NA
IV	8.61	11.60	10.45	10.97	9.00	5.00	NA	NA
1991	8.16	10.76	9.85	10.01	8.73	5.00	8.93	9.36
I	8.28	11.24	10.19	10.52	8.83	5.00	NA	NA
II	8.39	11.04	9.96	9.99	8.75	5.00	NA	NA
III	8.21	10.76	9.84	9.85	8.75	5.00	NA	NA
IV	7.76	10.00	9.42	9.68	8.58	5.00	NA	NA
1992	7.55	9.45	8.25	8.74	8.13	5.00	8.44	8.51
I	7.73	9.72	8.43	9.09	8.25	5.00	NA	NA
II	7.90	9.66	8.56	9.30	8.25	5.00	NA	NA
III	7.22	9.22	8.13	8.59	8.25	5.00	NA	NA
IV	7.34	9.18	7.86	7.97	7.75	5.00	NA	NA
1993	6.45	8.64	7.83	7.64	7.29	5.00	7.75	8.00
I	6.90	8.88	8.20	8.07	7.75	5.00	NA	NA
II	6.62	8.70	7.80	7.73	7.42	5.00	NA	NA
III	6.15	8.56	7.79	7.45	7.25	5.00	NA	NA
IV	6.14	8.42	7.54	7.30	6.75	5.00	NA	NA
1994	7.41	9.20	8.57	8.97	7.42	5.00	7.97	8.41
I	6.53	8.60	7.99	7.89	6.50	5.00	NA	NA
II	7.41	9.08	8.37	8.91	7.17	5.00	NA	NA
III	7.66	9.26	8.70	9.37	8.00	5.00	NA	NA
IV	8.05	9.86	9.21	9.71	8.00	5.00	NA	NA
1995	6.94	9.97	8.95	8.57	7.96	5.00	8.01	8.74
I	7.71	10.22	9.10	9.44	8.75	5.00	NA	NA
II	7.00	10.08	9.10	8.58	8.25	5.00	NA	NA
III	6.75	9.90	8.85	8.39	7.50	5.00	NA	NA
IV	6.28	9.69	8.74	7.87	7.33	5.00	NA	NA
1996P	6.83	9.39	8.08	8.13	7.12	5.00	8.14	8.83
I	6.36	9.34	7.88	7.97	6.83	5.00	NA	NA
II	7.07	9.42	8.06	7.99	6.83	5.00	NA	NA
III	7.07	9.40	8.18	8.20	7.33	5.00	NA	NA
IV	6.83	9.41	8.22	8.42	7.50	5.00	NA	NA

NA = Not Available. P = preliminary for commercial banks and the Farm Credit System. 1/ Unweighted average of rates on all outstanding bonds neither due nor callable in less than 10 years. 2/ New farm ownership loans. 3/ Average on outstanding farm business debt. 4/ Both real and nonreal estate loans.

Note: Because of changes in the practices of agricultural lenders over time and differences in the types of loans used to calculate each lender's interest rate series, interest rates across columns and over time are roughly rather than exactly comparable.

Appendix table 6—Commercial bank real estate lending, by type of bank, June 30, 1996

Bank group	Commercial banks	Real estate loans/ total loans	Nonperforming real estate loans/total real estate loans 1/	Total nonperforming loans/ total loans	Nonperforming real estate/ nonperforming loans	Weak banks 2/
	Number	*Percent*				*Number*
All banks	9,572	40.8	1.31	1.11	48.4	9
Agricultural	3,338	46.0	1.06	1.27	38.3	5
Small nonagricultural	5,592	61.4	0.92	1.00	56.5	4
Large nonagricultural	642	37.1	1.44	1.12	47.7	0
Urban	4,205	39.5	1.38	1.11	49.1	6
Rural	5,367	53.1	0.84	1.08	41.0	3

1/ Nonperforming loans are loans that are past due 90 days or more and still accruing interest plus loans in nonaccrual status. 2/ Weak banks are banks with total nonperforming loans in excess of total capital.

Source: Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Appendix table 7—Banks reporting nonperforming loans greater than capital, 1985-96 1/

Year 2/	Agricultural banks		Nonagricultural banks		Total banks	
	Number	*Percent*	*Number*	*Percent*	*Number*	*Percent*
1985	141	2.91	130	1.38	273	1.91
1986	158	3.36	230	2.47	388	2.77
1987	84	1.88	241	2.67	325	2.41
1988	54	1.25	238	2.76	292	2.30
1989	31	.74	181	2.14	212	1.68
1990	13	.32	130	1.58	143	1.17
1991	13	.33	107	1.35	120	1.01
1992	5	.13	55	.73	60	.53
1993	2	.05	30	.42	32	.29
1994	2	.06	17	.25	19	.18
1995	4	.12	6	.09	10	.10
1996	5	.15	4	.06	9	.09

1/ Nonperforming loans are loans that are past due 90 days or more and still accruing interest plus loans in nonaccrual status. Total capital includes total equity capital, allowance for loan and lease losses, minority interest in consolidated subsidiaries, subordinated notes and debentures, and total mandatory convertible debt. 2/ The 1996 numbers are as of June 30, all others are December 31.

Source: Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

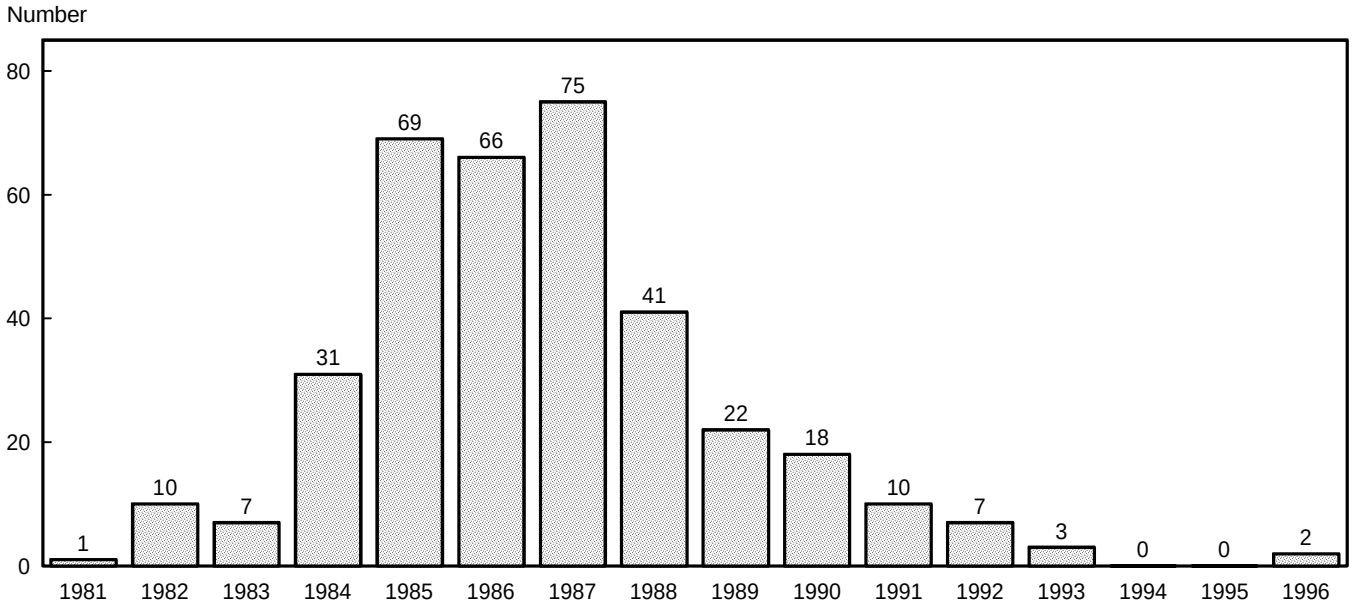
Appendix table 8—Commercial bank failures, 1982-96 1/

Year	Agricultural banks		Nonagricultural banks		Total banks	
	Number 2/	*Percent 3/*	*Number*	*Percent*	*Number*	*Percent*
1982	10	0.19	23	0.25	33	0.23
1983	7	0.14	37	0.40	44	0.31
1984	31	0.62	47	0.50	78	0.54
1985	69	1.42	49	0.52	118	0.83
1986	66	1.41	78	0.84	144	1.03
1987	75	1.67	127	1.41	202	1.50
1988	41	0.95	180	2.09	221	1.71
1989	22	0.53	184	2.18	206	1.63
1990	18	0.44	141	1.76	159	1.30
1991	10	0.25	98	1.24	108	0.91
1992	7	0.18	93	1.23	100	0.88
1993	3	0.08	33	0.46	36	0.33
1994	0	0.00	11	0.16	11	0.11
1995	0	0.00	5	0.08	5	0.05
1996 4/	2	0.06	3	0.05	5	0.05
Total	361	NA	1,109	NA	1,470	NA

NA=Not available. 1/ Counts of failures exclude mutual savings banks, savings and loan associations, commercial banks not insured by the FDIC, and banks headquartered in U.S. possessions and territories. Failures are those declared insolvent and closed by their chartering authorities plus those granted open bank assistance by the FDIC. 2/ Agricultural bank status is based on June loan data from the year prior to the bank's failure. 3/ Failures during the year as a percentage of total banks of this type remaining at the end of the year. 4/ Percentages for 1996 use June 30, 1996, data on numbers of banks in the denominators.

Appendix Figure 1

Agricultural bank failures



Sources: Calculated from information provided by the Federal Deposit Insurance Corporation and the Report of Condition and Report of Income files, Board of Governors of the Federal Reserve System.

Appendix Figure 2

Interest margins for Farm Credit Banks, 1982-96*

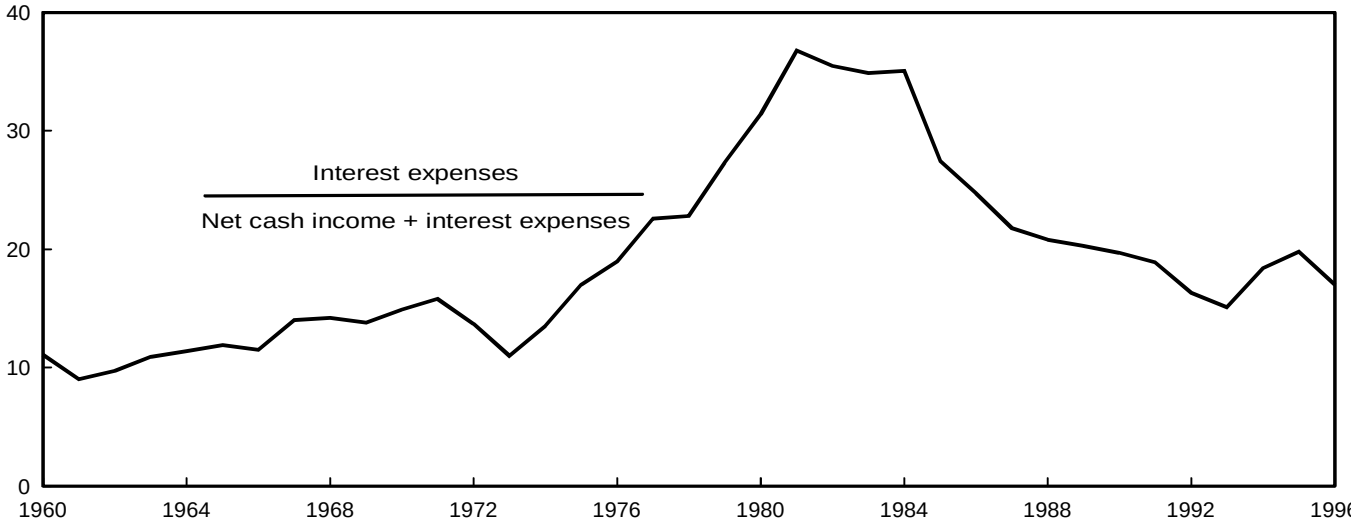
* Net interest income as a percentage of average earning assets. Average earning assets consist of gross loans plus cash and investments. Data represent combined totals for Farm Credit Banks and Associations. Data for 1996 is through September 30.

Source: "Summary Report of Condition: Performance of the Farm Credit System," Various Dates, Federal Farm Credit Banks Funding Corporation, Jersey City, NJ.

Appendix Figure 3

Interest expenses as a share of net cash income

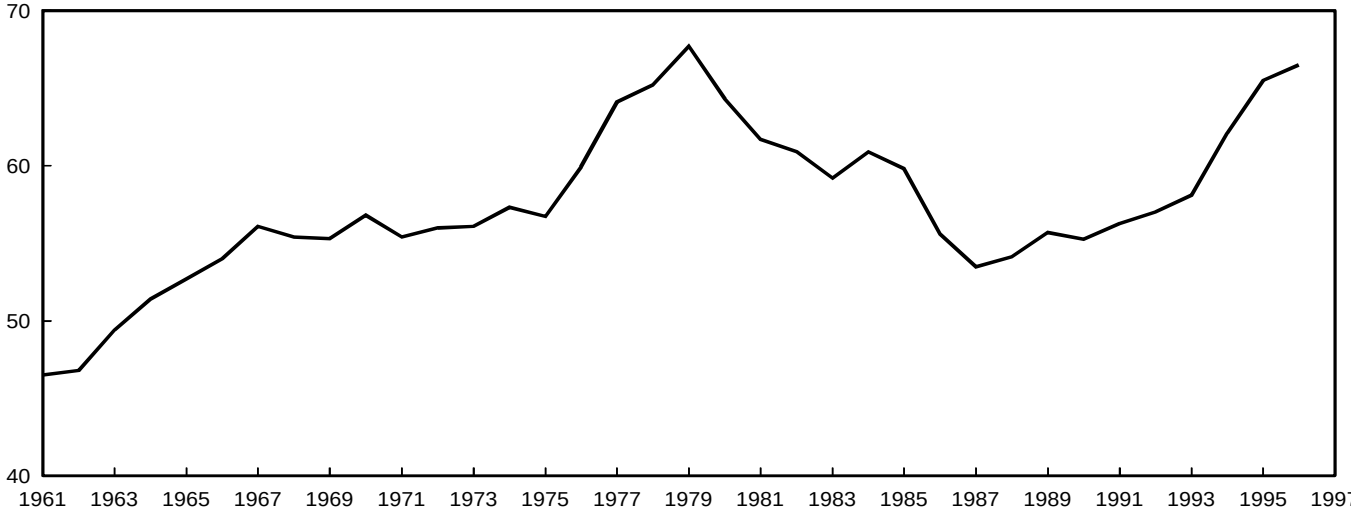
Percent



Appendix Figure 4

Agricultural bank loan-to-deposit ratios, June 30, 1961-1996

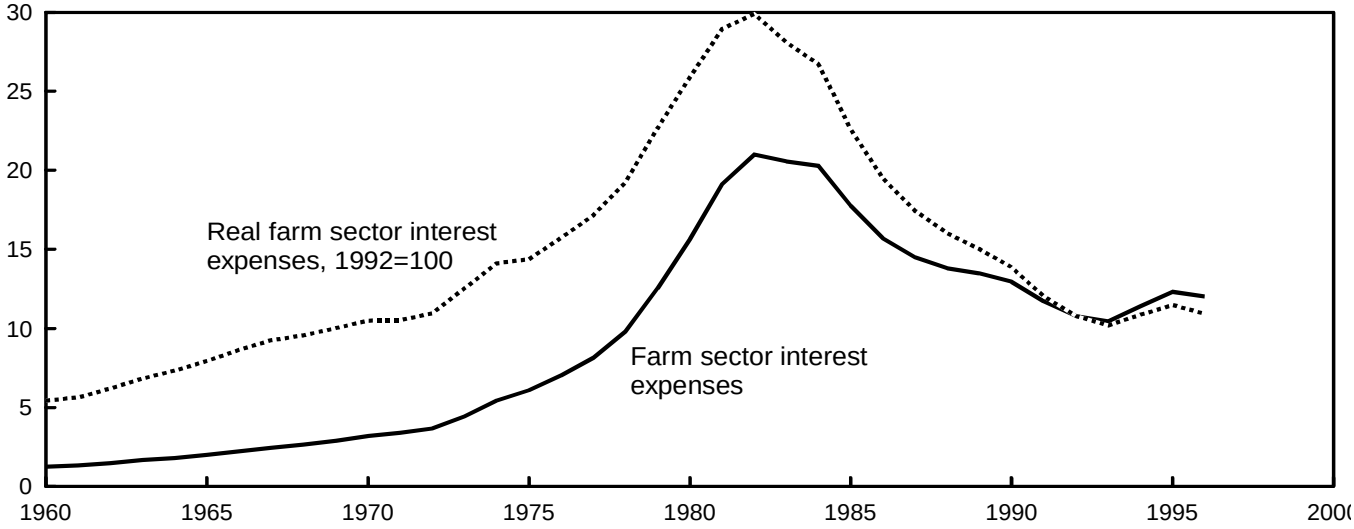
Percent



Appendix Figure 5

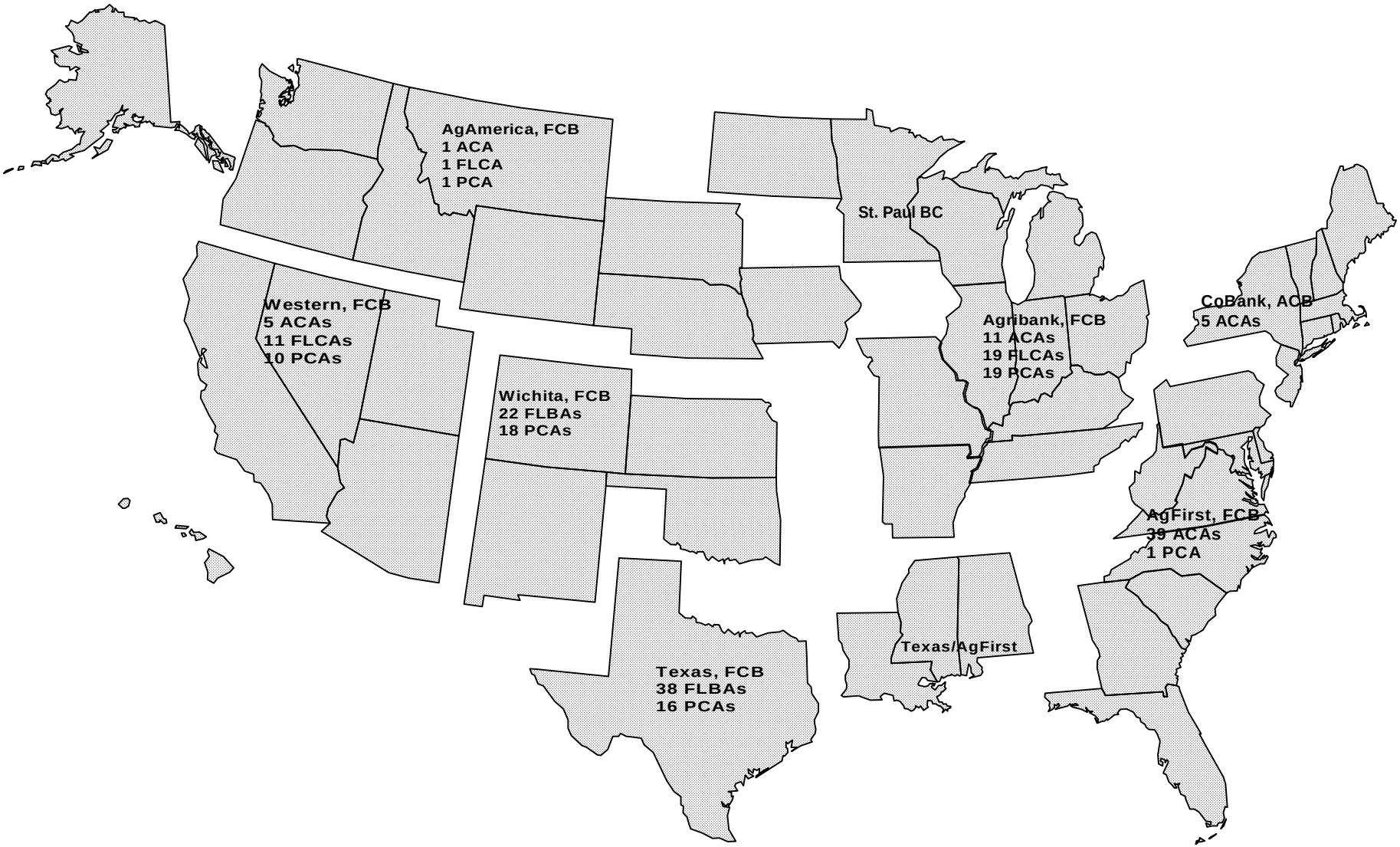
Farm sector interest expenses

$billion



Appendix Figure 6

Farm Credit System Banks and Associations, January 1, 1997*



* Associations affiliated with Texas, FCB, include 2 PCAs in New Mexico, 2 FLBAs in Alabama, 2 FLBAs in Mississippi, and 2 FLBAs and 1 PCA in Louisiana. Associations affiliated with Western, FCB, include 1 PCA in Idaho. Associations affiliated with AgFirst, FCB, include 1 ACA in Ohio, 2 ACAs in Kentucky, 1 ACA in Tennessee, and 1 PCA serving Alabama, Mississippi, and most of Louisiana. As of March 1, 1997 the Western and AgAmerica FCB's will be jointly managed while remaining legally separate entities.

Source: "Corporate Restructuring Report", Farm Credit Administration, January 1, 1997.